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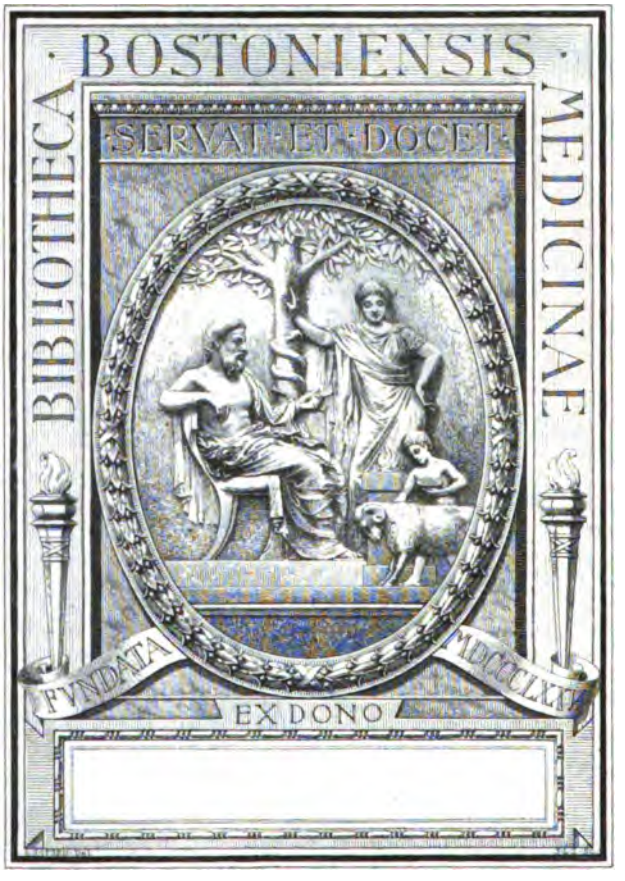
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CATALOGUED
OCT 31 1907
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INDEX.

PAGE

Abbott, W. C., Exudations..... 597
Ackermann, Wm., Conditions Simulating Intestinal Occlusion due to Mechanical Obstruction..... 579
Address, Annual, of President of State Medical Society of Wisconsin 55
Address, Doctorate 1
Advertising, Medical 663
American Medical Association, Boston Meeting of 41
American Medical Association, Membership in, ... 370
Anderson, L. W., Clinical Report.. 505
Aortic Aneurism, Symptoms and Diagnosis of 429
Apoplexy, Its Diagnosis and Treatment 114
Appendicitis and the Differential Diagnosis of Appendicitis in Children 174
Appendicitis, Some Important Factors Connected with 641
Appendicitis, The Non-Operative Treatment of 654
Argyrol, A Danger of 162
Arteriosclerosis 17

Banks, W. H., The Non-Operative Treatment of Appendicitis 654
Bassett, V. H., The Pathology of Acute Intestinal Obstruction... 583
Becker, W. F., The Status of the Detention Hospital 373
The Subconscious and Prof. Jastrow's Book 497
de Besche, Joh., Correspondence... 275
Bernart, Wm. F., Report of a few Syphilitic Cases Treated by the Intravenous Injection of Mercury 344
Biliary Tract, Surgery of..... 161
Binnie, John, Infant Feeding..... 183
Blank, H., Lodge Practice..... 333
Blood Pressure, The Relation of, to Surgery 238

BOOK REVIEWS:
Abbott, W. C., Alkaloidal Digest 227
Anders, Howard S., Physical Diagnosis 695

PAGE

Babcock, Robert H., Diseases of the Lungs 638
Baily, Pierce, Diseases of the Nervous System Resulting from Accident and Injury 225
Billings, Frank, Diseases of the Digestive System 565
Billroth, Theodor, Principles of Surgery 394
Blake, C. J. and Reik, H. O., Surgical Pathology and Treatment of Diseases of the Ear..... 225
Bryant, J. D. and Buck, A. H., American Practice of Surgery 392
Forchheimer, Frederick, Prophylaxis and Treatment of Internal Disease 391
Gouley, J. W. S., Surgery of the Genito-Urinary Organs 696
Hirsch, Charles S., Compend of Genito-Urinary Diseases and Syphilis 696
Kelly, Howard A., Operative Gynecology 393
Krehl, Ludolf, Pathologic Physiology 282
Luckett, W. H. and Horn, Frank L., Paraffin in Surgery..... 640
Morton, E. R., Essentials of Medical Electricity 394
Overall, G. W., Non-Surgical Treatise on Diseases of Prostate Gland and Adnexa..... 696
Paton, Noel, Essentials of Human Physiology 391
Potter, Samuel O. L., Compend of Materia Medica, Therapeutics, and Prescription Writing 226
Sandwith, F. M., Medical Diseases of Egypt 226
Schleich, Prof. C. L., Painless Operations 639
Starling, Ernest H., Recent Advances in the Physiology of Digestion 392
Ware, Martin W., Plaster of Paris and How to Use It..... 566
Yeo, I. Burney, Manual of Medical Treatment or Clinical Theraupeutics 226

PAGE

Zarniko, Carl, Diseases of the Nose and Nasopharynx..... 283
Breast, Malignant Disease of..... 395
Brown, Richard, H., Submucous Resection of the Nasal Septum.... 250

Cancer,—Can It be Cured..... 135
Cesarean Section in Placenta Previa 228
Christian, H. M., Hematuria of Renal Origin 62
Christian Science 29
Club—Foot 102
Congress of American Physicians, Washington Meeting of 687
Consumptives to the Country, The Danger of Sending 679
Contract and Club Practice 180
Corneal Opacities, Treatment of.... 161
Crede's Drop, Value of..... 47
Currens, John R., Annual Address of President of State Medical Society of Wisconsin..... 55

Dearholt, Hoyt E., Static Foot Disorder 511
Depravity of the Youth 684
Detention Hospital, The Status of.. 373
Detention Hospital Assured 269
Detention Quarters for the Alleged Insane 303
Dewey, Richard, Boston Meeting of American Medical Association... 41
Nervous and Mental Diseases in General Practice 453
Washington Meeting of Congress of American Physicians..... 687
Disinfection, The Fetich of 494
Dislocation of Eyeball 48
Dislocation of Outer End of Clavicle 102
Dodd, John M., Treatment of Sepsis 259
Drinking and Drunkenness in England, Decrease of 83

Elbow Joint Injuries 228
Employers' Liability in France 189
Endometritis, Concerning 475
Epileptics, State Provision for 298
Evans, J. M., Concerning Endometritis 475
Exophthalmic Goitre, The Medical Aspects of 519
Exophthalmic Goitre, Surgical Treatment of 633
Exudations 597
Eye, Injuries of, by Ink Pencils... 640

Fat Embolism after Fractures 46
Feeble Minded, Those who may be classified as, ... 468
Fee Schedule, Dane County..... 440
Flatfoot, Static, Treatment of 48

PAGE

Fractures of the Lower Extremity, A New Method for the Reduction of 285

Gallstone Disease, Medical Treatment of 336
Garbage Disposal, The Question of. 604
Goitre, Exophthalmic, Surgical Treatment of 633
Goitre, Exophthalmic, The Medical Aspects of 519
Goitre, The Surgical Treatment of 531
Ground, William E., Some Important Factors Connected with Appendicitis 641

Harper, C. A., Tuberculosis Sanatoria and Treatment 418
Hematuria of Renal Origin 62
Hodgins, Rev. J.. C., Doctorate Address 1
Hopkins, W. B., Sanatorium Treatment of Tuberculosis 14
Hopkinson, Lawrence, Membranous Colitis 481

Index Medicus, The 371
Infant Feeding 18
Infants, Hot Weather for 162
Injuries to the Eye, The Diagnosis and Treatment of 406
Insanity, Occupation for the Cure of 326
Intestinal Obstruction in Adults, The Symptoms and Diagnosis of Acute 567
Intestinal Obstruction, The Pathology of Acute 583
Intestinal Occlusion due to Mechanical Obstruction, Conditions Simulating 579
Intestinal Sutures, Capillarity in.. 161
Intussusception in Infants, Acute .. 572
Iverson, M., Remarks on Surgery of the Naso-Pharyngeal Structures 665

Jermain, L. F., Symptoms and Diagnosis of Aortic Aneurism..... 429

Kidney Fixation 229

Lawrence, G. H., Psoriasis 537
Legal Responsibility of the Physician for the Unborn Child.... 101
Legislation, Reform 79
Lemon, Charles H., A New Method for the Reduction of Fractures of the Lower Extremity 285
Levings, A. H., The Relation of Blood Pressure to Surgery..... 238
Lodge Practice 333

PAGE

McCabe, W. F., Obstetrical Responsibility During Gestation..... 599
McMahon, J. P. Detention Quarters for the Alleged Insane..... 303
Madison, J. D. Symptoms and Diagnosis of Acute Intestinal Obstruction in Adults 567
Malignant Disease of the Breast, The Pathological Basis for a Rational Curative Treatment of.. 395
Martin, George, Medical Advertising 663
Marquette—Milwaukee Medical College Consolidation 555
Marshall, Victor F., The Prostrate Gland 311
Maternity Hospital, Milwaukee.... 369
Medical Bills before the Legislature 544
Medical Bill, Returns from the... 438
Medical College Notes 81
Medical Department of the State University 502
Approval of Plan Proposed for the Establishment of..... 547
Medical Inspection of Schools 136
Medical Legislation, A Brief on Pending 612
Medical Teaching at the State University 488
Membranous Colitis 481
Membranous Urethritis Probably Influenzal in Origin 10
Mental Therapeutics 364
Midwifery, Regulation of 493
Midwifery Bill 607
Milk Exhibit in Cleveland 681
Milk Supply, Safeguarding Milwaukee's 682
Miscellany 53, 103, 163, 284
Modern Therapeutics, The Benefits of 358
Moyer, S. R., The Benefits of Modern Therapeutics 358
Myers, A. W., Membranous Urethritis Probably Influenzal in Origin 10
Acute Intussusception in Infants 572

Nasal Disease and Neuralgia..... 229
Naso-Pharyngeal Structures, Remarks on the Surgery of the... 665
Neilson, W. H., Purpura 105
Nervous and Mental Diseases in General Practice 453
Neuralgia, Nasal Disease and..... 229
News Items 50, 84, 138, 190, 273, 332, 371, 443, 495, 557, 609, 686
Noer, Julius, Poisoning by Coal Gas 73
Pneumonia, Some Clinical Considerations 337

PAGE

OBITUARIES:

A. B. Newton 87
John A. Rice 191
James T. Reeve 376
Obstetrical Responsibility during Gestation 599
Occupation for the Cure of Insanity 326
Ochsner, A. J., The Clinical Aspect of Stomach Surgery 165
Opium Movement, Anti 505
Opium Traffic in China 557

"Packingtown" Horrors 27
Patek, A. J., The Open-Air Treatment of Pneumonia 462
Placenta Previa, Cesarean Section in 228
Plaster Bed, Technique of 47
Pneumonia, Open Air Treatment of 462
Pneumonia, Postcritical Fever of.. 230
Pneumonia, Some Clinical Considerations 337
Poisoning by Coal Gas 73
Pregnancy, Toxaemia of 66
Proprietaries, The Prescribing of.. 288
Prostate Gland 311
Psoriasis 537
Purpura 105
Quick, Edward W., The Prostate Gland 311

Railway Sanitation 556
Reeve, Jas. S., Surgical Shock.... 231
Retrobulbar Neuritis Following Burns of Skin 162
Roentgen Rays, Visibility of 46

Sanatorium Treatment of Tuberculosis 14
Saunders, Wm. H., Contract and Club Practice..... 180
Scarlatina, Salt Free Diet in.....188
Schaeffer, Dr. F. X., Facts in the Case of 328
School Children, Poor Teeth of.... 331
Seaman, Gilbert E., The Diagnosis and Treatment of Injuries to the Eye 406
Seasickness, Relief for 103
Sepsis, Treatment of 259
Shock, Surgical 231
Sifton, H. A., The Surgical Treatment of Goitre..... 531

SOCIETY PROCEEDINGS:

County Societies:

Ashland 560
Barron-Rusk-Polk 561
Brown 382

PAGE

Calumet 100, 506, 693
Columbia 634
Dane 446, 561
Dunn.....159, 223, 279, 383, 507, 635
Foud du Lac.....100, 383, 447, 562
Grant 40, 280, 384, 693
Green and Lafayette..... 384
Green Lake-Waushara 448
Iowa 507
Jefferson 507
Juneau 448
Kenosha 280, 384, 507
LaCrosse 280, 385, 562, 635
Langlade 223, 385, 508, 636
Manitowoc 449
Marathon 386, 563
Milwaukee 386
Monroe 636
Oneida 334, 449, 508
Outagamie 388, 563
Racine 334, 449
Rock 450
Sheboygan 508, 563
St. Croix.....450, 637
Shawano 388
Walworth 224, 389
Washington 450, 637
District Societies:
Second 223
Ninth 693
Tenth 451
State Medical Society of Wisconsin:
Annual meeting of..... 88
Program of 60th Annual Meeting 33
60th Annual Meeting..... 78
Minutes of 60th Annual Meeting 141
Resume of Proceedings of..... 90
Council, Proceedings of..... 140
House of Delegates, Proceedings of.....151, 198
Secretary's Notes ...30, 276, ...378, 690
Preliminary Announcement of 61st Annual Meeting..... 602
British Medical Association..... 193
..... 159
Central Wisconsin Medical Society 159
Fox River Valley Medical Society 282, 452 510, 694
Milwaukee Medical Society.....40, 281, 335, 389, 451, 510, 564, 638, 695
Northwestern Wisconsin Medical Society 693
Spina Bifida 351
Spitz, Milton M., Spina Bifida..... 351
State Board's Crusade..... 368

PAGE

Static Foot Disorder 511
Stomach Surgery, The Clinical Aspect of 165
Subconscious and Prof. Jastrow's Book, The 497
Submucous Resection of the Nasal Septum 250
Sutherland, Fred. E., Appendicitis and the Differential Diagnosis of Appendicitis in Children..... 174
Syphilis, Recent Advances in the Study of 369
Syphilitic Cases Treated by the Intravenous Injection of Mercury, Report of a few..... 344
Telephone and the Doctor's Fee.... 186
Toxaemia of Pregnancy..... 66
Tuberculosis (See Consumption).
A Social Disease..... 49
Exhibit, Impressions of the..... 82
In France 272
Sanatoria and Treatment..... 418
Sanatorium Treatment of..... 14
State League Against.....80, 134
Wanted an Anti-Tuberculosis Serum 28
The White Plague in Platform 104
Tuberculous, Denver Bars the.. 554
Tuffley, F. S., Arterioscleroses..... 17

Umbreit, A. C., A Brief on Pending Medical Legislation 612
Undescended Testicle, Spontaneous Cure of 504

Vaccination and Tetanus..... 441
Voodoo Poem 51

Washburn, R. G., Toxaemia of Pregnancy 66
Washburn, William H., The Medical Aspects of Exophthalmic Goitre.. 519
Wegge, Wm. F., State Provision for Epileptics 298
Wilmarth, Alfred W., Those who may be Classified as Feeble Minded 468
Wisconsin Medical Union..... 269
Wingate, U. O. B., Apoplexy, Its Diagnosis and Treatment..... 114
Wurdemann, H. V., Meeting of the British Medical Association.... 193

Yates, John L., The Pathological Basis for a Rational Curative Treatment of Malignant Disease of the Breast..... 395

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OCT 31 1907
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THE WISCONSIN
MEDICAL JOURNAL

JUNE, 1906.

ORIGINAL ARTICLES.

DOCTORATE ADDRESS*.

REV. J. C. HODGINS.

MILWAUKEE.

The training of a doctor is not unlike the training of a soldier. He must,like the soldier, go through a preliminary course of study, take part, under the watchful eyes of his superior officers, in practical drill, and, at last, when the "cannon's opening roar" sounds as the signal of battle, call all his latent courage and strategy to aid him in taking part, in open or ambushed warfare, against the foe. In the case of the doctor the high call is to war against disease as the great enemy of the human race. But unlike the soldier he seeks to save life, not to destroy it. Even on the battle-field he must give aid and comfort to the enemy by denying that political or racial differences cut any figure when the object sought is the relief of pain or the prolonging of human life.

In older and ruder times it was not so. Then the battle meant ruthless extermination. The wounded were allowed to die. Comfort and sympathy were wholly reserved for the winning side. Today we behold a so-called heathen nation, Japan, treating the Russian wounded not only with scientific precision, but with delicacy and even tenderness. Science and humanitarianism have accomplished what all other forces failed utterly to effect in thousands of years of opportunity. No one can reasonably doubt that this higher and more chivalrous conception of what is due to human helplessness is owing to the fact that science, which knows no distinction of race or caste, has become the well-nigh universal possession of the advanced races.

*Delivered at the Thirteenth Annual Commencement of the Wisconsin College of Physicians and Surgeons, May 16, 1906.

The Russian physicians knew and honored Kitasato's work in bacteriology; the Japanese surgeons reverenced Pirogoff for his brilliant discoveries in their favorite science. The advocates of science do not fight against each other: they fight shoulder to shoulder against the common enemy. The analogy between the soldier and the doctor obtains up to a certain point; but the object of the one is not the object of the other. It is the stern and awful task of the soldier to incapacitate and destroy; it is the blessed work of the doctor to heal and restore. To me, I confess, this altruistic, this almost Quixotic devotion of medicine to its sublime end, is one of the greatest, if not the very greatest proof, of the continuous existence of a beneficent power at work in the world. There is more real religion in it than in all the creeds that were ever written or in all the sermons that were ever preached.

But if, gentlemen, your noble profession have a certain analogy to the work of the soldier, it has a vital connection also with the ministry of religion—I mean religion apart from all creeds and speculations whatsoever. On both of us weighs the burden of the world's sorrow. The high-minded doctor and the truly sympathetic minister supplement each other. It is safe to say that, where one fails because of a certain coldness and blindness of temperament, the other will also fail, at least in certain kinds of disease. "Who can minister to a mind diseased?" Science can, up to a certain point, without doubt. Hygiene, diet, medicine, surgery go far in various forms of mental depressions and obsession in effecting a permanent cure. The advances that have been made in these directions by medicine, and especially by surgery, are nothing short of marvelous. Yet, when all is said that can be said, it remains true that there is a vast field here which medicine does not, and in the very nature of the case, cannot touch. The death of idealism, for example, has often been the real prelude to the death of the mind and even of the body. The loss of personal faith in the power of which each one is the child, has not infrequently proved

> "The little rift within the lute
> That bye and bye shall make the music mute;
> The little pitted speck in garnered fruit
> Which, rotting inward, slowly moulders all."

Failure and weakness of will from purely moral causes, for the reason that no motive seems worth following to an end, is a potent source of mental disintegration. The loafer is simply a motiveless man; the vagrant is an aimless wanderer. You may discipline him

into sullen obedience, but what he really needs is a changed point of view, a new heart.

> "Ill, ill for him who bettering not with time
> Corrupts the strength of heaven-descended will,
> And ever weaker grows through acted crime."

The task of the true minister of religion, I make bold to say, is oftentimes as important as that of the professed expert in neurology. It sometimes happens that what is needed most of all is just the conviction

> "That all is well though faith and form
> Be sundered in the night of fear."

It is not a little thing to beget courage in a downcast heart, and it is not an easy thing. There is an histology of the soul as well as of the body; and that physician who should leave out of sight the prophylactic power of hope and optimism and faith in God, would indeed be blind to the very latest lessons of an advanced psychology. Prof. James, in his great book "Varieties of Religious Experience", points out that religious conviction—conversion—has been the most potent cause of all in lifting men out of the fearful pit of mental and moral despondency and setting their feet upon a rock and establishing the way of their doing. It must, indeed, be a great joy to overcome bodily disease; it is an equally great satisfaction to stiffen a man's moral backbone, put courage into his heart, conviction of a high kind in his soul and send him singing on his way. The day shall come when it will be universally recognized that men and women are incurably religious (doctors included), that we all, in some form or another, literally "live by faith", and when that day shall have arrived in all its fullness it will then be seen that religion, properly understood, including conduct and morality, is an indispensable element in the effecting of certain cures. Religion after all is the keystone of the educational arch. It is the transfiguration of culture and experience in the light of an ideal, and the man who is not, in some corner of his soul, spiritually-minded, is abnormal and incomplete.

But, in another very important respect, the minister and the doctor share a burden and a privilege. Their's is, in every sense of the phrase, a confidential relation. In no other walks of life do fine courtesy, genuine sympathy, noble reticence count for so much. A coarse familiarity in either is intolerable. It cheapens to the dust. Let me go a step further and say that, in no other walks of life are pretentious egotism and conceit so out of place. Always to go about as though one had a trump card up his sleeve is, to say the least,

PAGE

Calumet 100, 506, 693
Columbia 634
Dane 446, 561
Dunn.....159, 223, 279, 383, 507, 635
Foud du Lac.....100, 383, 447, 562
Grant 40, 280, 384, 693
Green and Lafayette..... 384
Green Lake-Waushara 448
Iowa 507
Jefferson 507
Juneau 448
Kenosha 280, 384, 507
LaCrosse 280, 385, 562, 635
Langlade 223, 385, 508, 636
Manitowoc 449
Marathon 386, 563
Milwaukee 386
Monroe 636
Oneida 334, 449, 508
Outagamie 388, 563
Racine 334, 449
Rock 450
Sheboygan 508, 563
St. Croix.....450, 637
Shawano 388
Walworth 224, 389
Washington 450, 637
District Societies:
Second 223
Ninth 693
Tenth 451
State Medical Society of Wisconsin:
Annual meeting of..... 88
Program of 60th Annual Meeting 33
60th Annual Meeting..... 78
Minutes of 60th Annual Meeting 141
Resume of Proceedings of..... 90
Council, Proceedings of..... 140
House of Delegates, Proceedings of.....151, 198
Secretary's Notes ...30, 276, ...378, 690
Preliminary Announcement of 61st Annual Meeting..... 602
British Medical Association..... 193
..... 159
Central Wisconsin Medical Society 159
Fox River Valley Medical Society 282, 452 510, 694
Milwaukee Medical Society.....40, 281, 335, 389, 451, 510, 564, 638, 695
Northwestern Wisconsin Medical Society 693
Spina Bifida 351
Spitz, Milton M., Spina Bifida..... 351
State Board's Crusade..... 368

PAGE

Static Foot Disorder 511
Stomach Surgery, The Clinical Aspect of 165
Subconscious and Prof. Jastrow's Book, The 497
Submucous Resection of the Nasal Septum 250
Sutherland, Fred. E., Appendicitis and the Differential Diagnosis of Appendicitis in Children..... 174
Syphilis, Recent Advances in the Study of 369
Syphilitic Cases Treated by the Intravenous Injection of Mercury, Report of a few..... 344
Telephone and the Doctor's Fee.... 186
Toxaemia of Pregnancy..... 66
Tuberculosis (See Consumption).
A Social Disease..... 49
Exhibit, Impressions of the..... 82
In France 272
Sanatoria and Treatment..... 418
Sanatorium Treatment of..... 14
State League Against.....80, 134
Wanted an Anti-Tuberculosis Serum 28
The White Plague in Platform 104
Tuberculous, Denver Bars the.. 554
Tuffley, F. S., Arteriosclerosis..... 17

Umbreit, A. C., A Brief on Pending Medical Legislation 612
Undescended Testicle, Spontaneous Cure of 504

Vaccination and Tetanus..... 441
Voodoo Poem 51

Washburn, R. G., Toxaemia of Pregnancy 66
Washburn, William H., The Medical Aspects of Exophthalmic Goitre.. 519
Wegge, Wm. F., State Provision for Epileptics 298
Wilmarth, Alfred W., Those who may be Classified as Feeble Minded 468
Wisconsin Medical Union..... 269
Wingate, U. O. B., Apoplexy, Its Diagnosis and Treatment..... 114
Wurdemann, H. V., Meeting of the British Medical Association.... 193

Yates, John L., The Pathological Basis for a Rational Curative Treatment of Malignant Disease of the Breast..... 395

sessed of an accredited medical degree. In the case of massage even, where there is disease—in ordinary cases it probably wouldn't matter much—I would have the masseur work strictly under a physician's orders. It is possible to bruise nerves from the outside as well as shatter them from the inside by the indiscriminate use of drugs. I maintain that this fight which is going on against cheap and universal cure-alls is not a fight between an old established caste and the so-called "new thought". It is a fight between science and barbarism; it is a fight between reason and ignorance; it is, though this is not so apparent, a fight between a chivalrous, unselfish order, and debasing animal cunning and rapacity seeking a short-cut to wealth. How many faith-cure and mind-cure theories would coutinue to exist if the state should suddenly determine that no man or woman, in the name of a theory or a religion, should undertake to relieve either pain or disease unless possessed of a properly certified medical degree? Not one! In the first place the rigorous discipline involved would speedily clarify the mind of the novice if undertaken; in the second place the brains needful to the taking of such a degree are, as a rule, utterly lacking in all such obsessed individuals. To allow these crass, illiterate men and women to set up as healers after a course of study in a so-called Metaphysical College is nothing short of a crime. One of these organizations offers a full course in physiology in six lectures for $150.00! Is this a fraud in the meaning in the law? If not it should be made so. Think of this audacious fake and then contemplate Sir Michael Foster's noble volumes dealing with this deeply interesting and vitally important branch of medical science! Huxley left his great work on the starfish unfinished; St. George Mivart gave up a large portion of his life to an anatomy of the cat; yet a country bumpkin, sans brains, sans culture, is able, after a course of six lectures, forsooth, to smile down upon these paladins of intellect with bland superiority.

Am I wrong, then, when I say that the fight against the charlatan, the quack, and the obsessed religious crank, is a fight of civilization against barbarism? Our present laws are largely based not upon science but upon simple equity. The source of all our legal confusion at the present time is that equity has not kept pace with the advances of science. Equity is based upon facts, no doubt, but facts accumulate steadily. The legal profession is in arrears. In this, as in so many other directions, the law is belated and medieval. The day shall come when science will be erected into law, and then, with the righting of many an ancient abuse, we shall see the last of these vultures and harpies who prey upon human credulity and human fear.

But while I am using the muck-rake and the carbolic spray—they should go together really—let me say that I hope the day will soon arrive when every newspaper in the United States with a pretension to decency shall set itself against the questionable, not to say obscene medical advertisement. It is a foul wrong against the community. Commercialism, greed of dividends is at the bottom of this iniquity. There is no excuse for it. It is a debauching influence, and should be stamped out by an enlightened public opinion. Need I say that the doctor who is a gentleman will never advertise? His best advertisement, as a matter of fact, will always be that he is a gentleman.

Every profession in these days is open to the charge of commercialism, and your chosen profession is, I fear, not altogether exempt. And yet, as I look abroad and consider the daily risks that medical men run, the broken hours, the sleepless nights, the heavy, constant drain upon the sympathetic nature, the totally inadequate average remuneration. I feel convinced that it is the noblest and most unselfish profession in the world, and I except none, not even my own. It may, indeed, seem presumptious in a medical layman to touch on this delicate question, and under ordinary circumstances, I should hesitate to do so. I should not do so now, were I not convinced that it is one of the great evils of the time. Enormous fees in medicine have had the same effect upon the moral nature as enormous fortunes in business, and, curiously enough, both spring from the same origin—the acknowledged medical genius is a monopolist. But there is this difference, thank God: whereas a great fortune in business can be built up by questionable methods, a great reputation in medicine cannot. Men like Keen and MacEwan, like Lister and Osler, make good in a series of unrivalled brilliant successes. There is a good and bad commercialism in medicine as in business. I know of no profession where merit is so quickly recognized; I know of no profession (I am speaking now of what takes place among the doctors themselves) where pretentious hum-bug is so soon found out and discredited. The flashy, superficial, commercial doctor may fool the people, but he cannot fool the doctors.

Do not, I beg of you, young men and women, think at the outset of your careers of the money there may be in it. Think of your art, think of your patient, think of humanity. Let the passion for healing take possession of your souls—may it be as the fire in your bones. Give your minds to your books, become *en rapport* with the very latest discoveries, strive and be ye perfect. If you attain high excellence the world will find you out, though, as like as not, when that recognition

comes the laurel will be shamed by the silver crown of a serene old age which has grown indifferent to mere applause. But, even though the laurel should never deck your brow, though God may have denied you genius or even high talent, remember that there are rewards higher than those of fame: the consciousness of a life well spent in acts of undeniable beneficence; the respect and love of those to whom in hours of difficulty and danger you may have been as the shadow of a great rock in a weary land. Remember, at all events, that in the medical profession, as a rule, those become rich and famous who deserve to be, and that at the bottom of all such success lies devotion to an ideal.

"The path of duty is the way to glory,
He who walks it only trusting to the right,
And dares to deaden love of self,
He shall find the stubborn thistle bursting
Into glossy purples which outredden
All voluptuous garden roses."

I know that it is often said that your profession tends to materialism. I do not belive it When Dr. Leidy was asked upon one occasion by a ministerial friend of mine, "What do you do when in the course of your investigations you can go no further?" the great scientist replied, "I take off my hat." The doctor more than any other man ought to, and I believe does, recognize that he is the conscious child of the very life which he is all the while investigating. The *B Minor Mass* is not to be explained as a "fortuitous concourse of atoms"; you cannot take a section of the brain, place it in the fixing medium and say "Behold *The Paradise Lost* or *In Memoriam* or *The Gettysburg Address* or *The Beatitudes.*"

"Ah, there is something here
Lies deeper than the cynic's sneer;
Something that gives our feeble sight
A high immunity from night;
Something that breaks life's prison-bars

To claim its birth-right with the hosts of heaven."

To the reverent doctor (and the irreverent doctor like the undevout astronomer is surely mad with blind conceit) the body must always be the temple of the Holy Spirit. How, indeed, can it be otherwise with a man who, not occasionally, like the judge upon the bench, but daily sometimes must pronounce sentence of death—a sentence from which there is no appeal! How can it be otherwise when, in

answer to his awful fiat, he beholds the broken heart turning like a little child to a higher power for comfort and aid! Men stand with hushed breath in the shadow of the ruins of The Parthenon; but to the devout doctor the meanest human form clasped in the cold embrace of death, sin-seamed and blasted though it may be, is a ruin in comparison with which all such colossal wrecks of man's former achievings seem tame; for from that abode—strange, enigmatic, divine—came all the glories of human accomplishment in science, art, law, literature, religion; from it is breaking forth at this very hour, it may be, the irridescent bubble of some divine surprise.

Cling to your noble art, young man, but give your soul its innings. Feed it upon the best of mental herbage, and you shall be not only a successful doctor, but, what is far better, a well-rounded, divinely complete soul.

Oliver Wendell Holmes, for many years with Emerson and Lowell, Longfellow and Bryant, a devout member of my own small communion, was, as you are all well aware, for the greater part of his life, professor of anatomy at Harvard University, doing brilliant and original work in his chosen specialty. It might be thought that a man who constantly confronted dead bodies in a wintry-darkened, ill-ventilated room, would soon lose that tender faith and idealism which preeminently distinguish the deeply religious man. But it was not so. He who could lecture with unrivalled skill standing over a dead body, who could describe a sweat-gland as "a fairy's intestine" could also write:

> "Oh, love divine that stooped to share
> Our sharpest pang, our bitterest tear;
> On Thee we cast our earth-born care;
> We smile at pain when Thou art near."

In the secret recesses of every doctor's soul these great words which Shakespeare puts into the mouth of Hamlet should find a lodgement: "What a piece of work is a man! how noble in reason! how infinite in faculty! in form and moving how express and admirable! in action how like an angel! in apprehension how like a God! the beauty of the world! the paragon of animals!"

I wish you all, ladies and gentlemen, long, useful and happy lives.

TWO CASES OF MEMBRANOUS URETHRITIS PROBABLY INFLUENZAL IN ORIGIN.*

BY A. W. MYERS, M. D.

MILWAUKEE.

Membranous urethritis is a condition so rarely seen that most of the text-books do not even mention its existence. Others speak of it as being seen very rarely in old, chronic gonorrheas, but its occurrence as an acute condition is overlooked.

In 1903 Klimeck reported two cases of membranous urethritis in acute gonorrhea, in one case after the use of Ricord's solution, in the other after concentrated potassium permanganate solution. In both cases recovery followed the use of weak astringent solutions.

In a rather hasty search of the recent literature I have been unable to find any reference to a urethritis of influenzal origin, although the occurrence of a pneumococcal urethritis as described by Blake, an "enterococcal" urethritis as narrated by Dreyer, and, according to Johnston, not infrequently a urethritis due to Pfeiffer's micrococcus catarrhalis, leads one to consider it a probability.

And when one considers the nature of the pathologic processes seen in influenzal infection of a mucous membrane, the enormous hyperemia sometimes going on to actual extravasation of blood, the profuse cellular infiltration, the frequent thrombosis of the smaller arteries and veins and of the capillaries, with necrosis of the superficial layers, one must admit that should such an infection take place it would be apt to resemble the croupous or membranous inflammation occurring in the larynx, the trachea or bronchi, the conjunctiva, or in the intestinal mucosa in severe grippe infections.

The first case to which I shall call your attention was that of a young man about 25 years of age, with no history of gonorrheal infection. He was seen in the latter part of February, 1902, in a typical attack of influenza of a mild type. He made apparently a complete recovery and returned to his business, but within 4 or 5 days he began to have some frequency of urination and a burning pain in the perineum after micturition. He consulted me again on the 7th of March, at about 7 o'clockP. M., when this had been going on for two days. He said he had been kept awake all the preceding night by the burning pain in the perineum and the desire to urinate. During the day he was more comfortable, but this evening the trouble was

*Read before the Milwaukee Medical Society, Dec. 12, 1905.

worse than ever and there was now a throbbing sensation in the perineum. The size of the stream was diminished but there was no urethral discharge. At 8:30 P. M. he brought to me what was apparently a membranous cast of the urethra which he had just passed. It was about one and a half inches in length and was passed, with considerable straining, at the end of urination. The cast was decidedly blood tinged.

The urine at this time was strongly acid, 1009, quite turbid, contained numerous shreds and filaments, and gave a distinct albumin reaction. Under the microscope there were seen very numerous pus cells, free and in cylinders, a few of the cylinders seemed to have a fibrin filament in the center; some long fibrin filaments with masses of pus cells adherent irregularly. The cast of the urethra showed a net work of fibrin with leucocytes and small irregular epithelial cells thickly packed in the meshes.

Stained smears from the sediment showed no gonococci, and no influenza bacilli could be demonstrated.

No more distinct membranous shreds were passed and the course of the disease was to rapid and complete recovery. The burning on urination persisted for several days, the turbidity of the urine and the shreds cleared up in about two weeks. Before this time, too, the albumin entirely disappeared. At no time was there any urethral discharge and no gonococci were found at any time although search was made repeatedly.

The second case was that of a large, healthy boy of 16 years, seen with Dr. Ogden, to whom I am indebted for the early history of the attack. His family and previous personal history were good and there was neither history nor evidence of any venereal infection.

He was seen by Dr. Ogden on the evening of Sept. 11, 1905, and gave a history of having felt well until about 5 P. M. of that day, when he experienced considerable pain in the rectum and penis on going to stool. He felt feverish and out of sorts at dinner-time but ate a fair meal. Later he became nervous and semi-hysterical and complained of a great deal of pain in the penis, but no discharge could be found. At 9 P. M. he had a temperature of 105.2°. On the following day there was very little pain but the temperature was still high and there was general muscular soreness and a slight coryza. The urine was clear and normal except for a high degree of acidity. A clinical diagnosis of influenza was made. He improved rapidly and on the 14th and 15th the temperature was normal but

there were still occasional pains in the urethra. During the evening of the 15th the pains in the penis and perineum returned and contined to be very severe all night. When I saw him first, at 4 A. M. of the 16th, the suffering was obviously of a most intense character. The worst of the pain was referred to the head of the penis but there was also some pain of a severe character referred to the rectum. The temperature was about 102°. There was no urethral discharge. A hypodermic of morphine was given and all the urine ordered to be saved for inspection.

The urine had been clear up to this time, but a specimen passed several hours later, which caused sharp pain in the end of the penis and also pain referred to the rectum, was turbid and contained several good-sized flakes of distinct membrane. Later in the day the specimen here exhibited was passed, also with severe pain. After this no more membrane was passed although for several days there was some burning after urination. The turbidity of the urine cleared up in a little over a week. The temperature reached normal in two days. There was no urethral discharge at any time.

The centrifugalized sediment which consisted of leucocytes and squamous epithelial cells was repeatedly examined for gonococci but none were found at any time. The membrane was examined for the presence of influenza bacilli but none could be demonstrated.

The treatment in both cases was the same: instillation of a 3 per cent. argyrol solution was carried out once daily, an alkali was given to neutralize the acidity of the urine. Urotropin was given in both cases, in the first case early, when it seemed to increase the discomfort, in the second case at a later stage when it was well borne and seemed to aid in clearing up the turbidity of the urine.

In the first case the posterior urethra seemed to be the only tender place discovered by the tip of the instillator, while in the second case there was a very tender area an inch and a half from the meatus as well as one in the posterior urethra, and you will remember that in this case the pain was referred to the end of the penis as well as to the perineum.

It is true that neither of these cases is proven to be influenzal by any bacterial evidence, but the occurrence of an unquestionable attack of influenza so shortly before in the first case, and the influenzal symptoms presented in the second case make it seem reasonable to suspect the influenza bacillus of having been the cause of the disturbance.

Of course, I know the difficulty in convincing some physicians that any case of urethritis is not gonorrheal, but in these cases the histories, which I believe to be true, excluded it, the symptoms and the course of the disease excluded it, and repeated microscopical examinations excluded it.

In his work on Genito-Urinary Diseases, Taylor speaks of membranous desquamative urethritis, and refers to a croupous urethritis which is acute and an epithelial desquamative urethritis which is chronic. Both of the cases I have reported this evening would come under the first heading. That the epithelial desquamative urethritis is not necessarily chronic but may be of a very acute character, is shown by a case reported by Hirt in *Allg. med. Centralztg.*, No. 14, 1905. A healthy man, 34 years of age, with no history of venereal infection, after eating heartily and drinking a few glasses of beer, had a very loose bowel movement with severe cramps. Passage of urine at this time was painless. Three hours later he passed urine with severe pain in the posterior urethra spreading over the whole bladder area. This urine was filled with whitish glistening particles. Urine passed half an hour later showed the same peculiarities but less marked. The pain soon became less and the patient slept. Three hours later the urine was entirely clear. The particles under the microscope were seen to be composed of sheets of epithelium, which had undergone a moderate amount of fatty degeneration. There were also present many leucocytes, a few red blood cells, and amorphous urinary salts. The reaction of the urine was alkaline and the specific gravity was 1030.

Hirt concludes that the case was one of acute cystitis and urethritis appearing and vanishing within the course of a few hours, in a urinary tract previously perfectly healthy.

These conditions are curious and interesting, painful enough to the patient while they last but fortunately of short duration, requiring little treatment, and tending to go on to entire recovery.

TWO YEARS EXPERIENCE IN THE SANATORIUM TREATMENT OF TUBERCULOSIS IN THE PINERIES OF NORTHERN WISCONSIN.

BY W. B. HOPKINS, M. D.

CUMBERLAND, WIS.

There has been so much written on this subject that of necessity there has been much repetition. We have heard a great deal of the excellent results of the Outdoor or Sanatorium Treatment. It is very natural indeed for writers to bring forward their good results, and let their failures sink into oblivion. But I will write upon something new—upon my failures, or rather upon the obstacles met with, because obstacles met and overcome are the steps that lead to success.

Patients with tuberculosis read that fifty per cent. of incipient cases are curable by the outdoor treatment, but they do not get the idea, the truth, that this success depends as much upon themselves as upon their physician and environment.

The sanatorium treatment is not in any sense a passive one, and is of necessity unsuitable for advanced cases. The thought of this paper is that the patients of the future may avoid the mistakes of others in the past.

"To be forwarned, is to be forearmed." Therefore I will mention the obstacles we have met with, not by any means as a discouragement, but because I am thoroughly convinced by these two years' experience that when physicians, patients, (and I must include the guardians and friends of patients,) get the true idea of the "Outdoor Life", and the sanatoria become (by means of the lessons learned only by experience) more ideal, we can and will accomplish greater results.

I will state definitely that I have not found tuberculosis an easily curable disease, and I would lay special stress on the word *"easily"*.

Why? Because:

(a) More than fifty per cent. of the patients we have admitted (and we have rejected many) have been advanced cases with too much destruction of lung tissue to even hope of permanent cure. I have looked on in wonder at the rapid improvement of the distressing symptoms, in some of these cases; the cough will decrease during the first week; the appetite improve, and we can give them a great deal of comfort and often prolong life.

One far advanced case, a young lady of twenty years, a stenographer from a large city, came up into the pines; the change in her environment was marked, and the change in her symptoms was

equally marked. She ate and slept like a child, and suffered little pain during the eight weeks she was there, but died in a short time on returning to the city. I cannot say positively that we prolonged her life, but we surely added materially to her comfort.

If the sanatorium treatment is to be a success, there must be an early diagnosis by the family physician and intelligent action at once on the part of the patient.

(b) The acuteness or virulence of the attack or possibly a lack of resistance in the system of the patient.

Two patients suffering from the ulcerative form of pulmonary tuberculosis, and in apparently the same condition, come to the sanatorium: one, sooner or later responds to treatment, the other not at all; one goes on to apparent health, but nothing will lessen the temperature, the consuming fire in the other, and he dies of acute phthisis.

(c) It is very difficult indeed to impress many patients with incipient tuberculosis with the gravity of their condition. It is very difficult to make a person believe he has a serious disease when he feels comparatively well. If he is sufficiently far advanced to permit of the finding of the bacilli, that is proof positive, but as we all know, the little caseous nodules have formed in the lung, and broken down before the bacillus is liberated. Fortunate is that patient whose physician can give a probable if not a positive diagnosis before the bacillus is found in the sputum.

(d) Inadequate funds. Consumption is largely a disease of the poor, and often—too often—the patient has to leave the sanatorium when the prospects for a complete recovery are bright. It is for this class of patients, that the State Sanatoria are so greatly needed.

(e) A lack of the necessary energy and perseverance. One young man, aged twenty-one, clerk, came to the sanatorium on June 5th, with dulness in right apex, extending to fourth rib. It rained almost constantly for five long weeks, and each week as I examined his lung, I reported local conditions the same. He suffered a very severe attack of pleurisy, and though his general condition had improved, it was not until the last of August that I could tell him that the dullness was decreasing. *Such* perseverance requires "sand".

(f) Making a hobby of one element in the treatment, to the neglect of all the others. This is usually "climate". Less often a patient thinks—if he sleeps and lives in the open air—that he is taking the "cure" though he loafs about town during the day.

(g) Worry. One patient, a widow who was left with quite a large

estate, gave it so much anxious thought, in fact such constant worry, that the treatment was utterly devoid of benefit.

(h) Homesickness. This is a difficulty that is hard to cure. If the patient can go home for a time, or if some relative can come to him, it may perhaps be overcome. It would be well if every sanatorium could afford to have some tactful person to interest patients, especially persons who are confined to bed because of fever.

(i) Simplicity of the treatment. Patients say that they can do this at home. You may have perfect ventilation and proper food, but rest, quiet, complete freedom from business or social cares, and above all, the ever constant watchfulness to keep patients with temperature from exercising too much, are difficult to obtain at home. Anxious parents and friends often coddle and worry the younger patients, when their motives are of the best. Many little details in the sanatorium combine to make a grand whole.

(j) The harmful advice of well meaning friends who cannot differentiate between different forms of tuberculosis or different stages. Some near friend or relative has been helped by this climate or that medicine, and they constantly and persistently affirm that this is the only climate and medicine of any avail.

(k) A disregard of rules. The class of patients we have had were exceptional in this respect. We had trouble in only one instance, and this was caused by the fixed habit of spitting. The gentleman simply could not remember, and, of course, promiscuous spitting can not be tolerated in this disease.

We also found it very hard for young people to be confined to bed because of temperature.

(1) Our *greatest* obstacle was to get patients to remain in the sanatorium after they were so far recovered as to feel perfectly well, though the local trouble was not fully cured, and there were still bacilli in the sputum.

On looking over these obstacles I find that they apply as much, or even more, to patients outside the sanatorium, as to those within, and also that several of them are beyond the control of the patients themselves. Three of them—not commencing treatment soon enough, not continuing it long enough, and the lack of funds—multiply the deaths from this disease. Education will help the two former, and many State sanatoria are helping the latter, to stay the progress of the great white plague.

In closing I will state, that I do not know of any more practical, humane and gratifying mark, than the Sanatorium treatment of in-

cipient tuberculosis, and careful consideration and earnest effort by the medical profession, for the relief of this large class of sufferers, will not be labor spent in vain.

ARTERIOSCLEROSIS*.

F. S. TUFFLEY, M. D.

LIVINGSTON, WIS.

Arteriosclerosis is a condition of arterial thickening, diffuse or circumscribed, beginning in the intima, consequent upon primary and secondary changes in the media and adventitia, and later involving the other coats. The process leads to what is known as atheroma and to endarteritis deformans, and seriously interferes with the normal functions of the various organs. The conception or arteriosclerosis as an independent affection—a general disease of the vascular system—is due to Gull and Sutton.

ETIOLOGY.—Arteriosclerosis is an involution process accompanying old age and is the expression of the natural wear and tear to which the tubes are subjected. Longevity is a vascular question which has been expressed in the axiom that "a man is as old as his arteries." A majority of men die from this cause. The onset of physiological arteriosclerosis depends, first, on the quality of arterial tissue, and second, on the amount of strain thrown upon it. That the former exists is shown in young patients in whom no other cause can be found to explain the existing condition. Thus, a man of thirty may have the arteries of a man of sixty, or a man of forty may have the arteries of a man of eighty. Entire families may show early arteriosclerosis which cannot be explained in any other way than in the make-up of the organism. Much more common is it to find bad usage of good arteries resulting from the following vices:

1.—Overeating. Not enough stress is laid on this as a cause of arteriosclerosis. Many cases show no other cause. The high pressure at which men now live must be taken into account. George Cheyne's advice—"milk and sweet sound blood differ in nothing but color. Milk is blood"—was never more needed than in the present generation.

2.—Overwork of muscles. This increases peripheral resistance and raises blood pressure.

3.—Chronic Intoxications.

*Read before the Grant County Medical Society, May 10, 1906.

(a)—Alcohol. Most textbooks, as for example Osler, Tyson, Struempell, Wood, Fitz, etc., state positively that alcohol is a causative factor in the production of arteriosclerosis. In Nothnagel's Pathology in the production of arteriosclerosis. In Nothnagel's Pathology and and Therapy Schatter says, "alcohol is considered by practically all writers on arteriosclerosis as the chief cause or at least one of the most important causes of the condition". Yet he seems to be somewhat undecided as to the evidence yet produced. Dulcos and Rippert are still more outspoken in this belief. In Vol. XLIII No. 13 P. 774 J. A. M. A. Cabot outlined results noted in the Mass. Gen. Hospital, the Bridgewater State Farm, and the Foxborn Asylum, as follows: At the two latter he found that of 283 cases of chronic alcoholism investigated, excluding those over fifty years of age and syphilitics, only 18 cases or six per cent. showed arteriosclerosis, so far as could be determined by thorough examination. The cases over forty years of age having been excluded, the proportion fell to one and four tenths per cent.

Of the cases of relative early arteriosclerosis, in an examination of several hundred, forty-five were below fifty years of age. Six of these or 13 per cent. gave some history of alcoholism.

Of the 656 postmortem records examined 95 were under fifty years of age, and had no history of syphilis. Of these 95 cases the records stated positively that 57 cases, or 60 per cent., were not addicted to the use of alcohol. Of the remaining 39, eight cases used alcohol to excess, 14 in moderation, and in five the amount was trivial, leaving 20 cases in which alcohol was taken to excess.

His conclusions are:

Only six per cent. of 283 chronic alcoholics under fifty years of age showed evidence of arteriosclerosis.

Of 45 cases of arteriosclerosis in the Mass. Gen. Hospital only 13 per cent. gave any history of alcohol.

Of 656 cases of arteriosclerosis 95 were under fifty years of age, and of the 95 cases only 21 per cent., and, if chronic nephritis be excluded, only 17 per cent. of the cases were alcoholics.

(b)—Lead. Clinical and experimental evidence prove lead to be a causative factor in the production of arteriosclerosis, especially in gouty subjects. It causes in the protoplasm cloudy swelling, fatty degeneration, vacuolization, granular atrophy and hyaline degeneration of the nuclei; in the later stages, connective tissue hyperplasia. There is a decided tendency to hemorrhage and endarteritis even to obliteration. Coene found that lead first had a destructive action on parenchymatous tissue, second on the blood and vessels, and finally,

a sclerosing action. This effect, he claims, applied to all organs, but especially to the kidney. Charcot and Gumbalt produced changes in the kidneys similar to chronic interstitial nephritis associated with lead poisoning. Prevost also produced interstitial nephritis on rats by administering lead. Billings' conclusions on lead intoxication are as follows: "lead produces disease of vessels either directly or indirectly. Directly as is shown by experiment on animals. Probably this is by the direct influence on the vessels of the lead in the circulating blood. The undisputed fact that lead may cause gout and the equally true proposition that in gouty individuals arteriosclerosis occurs early, may explain the influence in producing arteriosclerosis in rare cases. Experimental and clinical evidence prove incontestably that lead may cause nephritis. This is usually the contracted kidney which sooner or later has associated with it the thickened arteries and left cardiac hypertrophy. Lead intoxication may lead directly or indirectly to arteriosclerosis".

(c)—Infectious Fevers. Thayer (J. A. M. A.) comes to the following conclusions in regard to the infectious fevers as a factor in the production of arteriosclerosis. "1. The per cent. of palpable radial arteries is naturally higher in those individuals in whom there is a history of heavy physical labor and the use of alcoholic stimulants than in the remaining cases. This percentage is appreciably higher in the cases giving the history of heavy work. 2. The percentage of palpable radial arteries is higher among those cases presenting a history of severe infectious diseases than among those in which the history is absent or among those in which a history of no causal factor can be obtained. The proportion is, however, far below that in the case of work and alcohol. 3. Rheumatism appears to be the acute infection after which the percentage of palpable vessels is the highest, and next to rheumatism is typhoid fever."

(d)—Syphilis. Syphilis has long been considered a causative factor and beyond all doubt is one cause in the production of arteriosclerosis. Locomotor ataxia is no doubt caused by sclerosis of the spinal vessels, but Drennen (J. A. M. A.) calls attention to the fact that in the long continued use of mercury the arteries may be severely affected. Mercury for the treatment of syphilis is an old and reliable remedy, but Drennen believes that it has been abused. He presents cases to prove the beneficial results of stopping mercury after the long continued uninterrupted use of the drug.

(e)—Nephritis. Nephritis is considered to be one of the causes of arteriosclerosis by raising peripheral resistance, but literature is scarce on this point to prove that it is a causative factor. More ob-

servation is needed along this line before it can be considered as one of the causes.

(f)—Ductless glands. Osborne (N. Y. Med. Jour.) thinks the above factors act to cause arteriosclerosis but that the chief cause in its production is some faulty secretion of the ductless glands. After studying the glands that furnish secretions modifying blood tension he puts forth the hypothesis that a diminished thyroid secretion, or an increase in suprarenal secretion, or vice versa, may be the essential cause of arteriosclerosis. There may be too much suprarenal or too little thyroid secretion at any age, but old age with its high blood tension is probably due to too small thyroid and a consequent—at least relative—increase of suprarenal secretion. Erb has produced arteriosclerosis in animals by the injection of adrenalin. Coplin has been able to demonstrate lesions of the adrenals in several cases of arteriosclerosis, and this fact—together with occasional observation of increased blood pressure in certain adrenal lesions—as adenomata, should lead to a much more thorough research of these glands as a causative factor of arteriosclerosis. Even at the present time many writers have suggested that arteriosclerosis is always of adrenal origin and that toxic substances which were supposed to produce vascular lesions directly do so rather by the indirect action on the adrenals which they stimulate and cause to hypertrophy.

SYMPTOMS.—Increased tension. The pressure of the blood depends upon peripheral resistance and the force of the ventricular contraction. A high tension pulse may exist with very little arteriosclerosis, but as a rule when pressure has been of long standing the two conditions are found together. The pulse wave is slow in the ascent, enduring, and subsides slowly, and during the interval of the beat the vessel is firm. The pulse may be difficult to obliterate and the firmest pressure on the radial or temporal artery may be unable to cause the walls of the artery to disappear. It may be difficult to estimate the tension of the pulse, but when the radial is compressed and the walls are palpable beyond the point of compression, the walls are sclerosed.

Hypertrophy of the Heart. On account of the peripheral resistance and increased work, the left ventricle increases in size, and some of purest cases of hypertrophy are due to this condition. The chamber may or may not be dilated. The apex is dislocated beyond the nipple line. The impulse is heaving and forceable. The second aortic is clear, ringing and accentuated. A combination of increased arterial pressure, hypertrophy of left ventricle, thickening of the vessel

wall and accentuated second aortic sound, are pathognomonic of arteriosclerosis.

The following train of symptoms chiefly affects the cardiac, cerebral and renal systems:

Cardiac. The involvement of the coronary arteries may lead to such symptoms and conditions as thrombosis with sudden death, fibroid degeneration of the heart, aneurism of the heart and great vessels, rupture, and angina pectoris. Osler (J. A. M. A.) calls attention to angina occurring together with arteriosclerosis. The true variety of angina is almost always associated with arteriosclerosis. The second important group of cardiac symptoms is cardiac dilatation and hypertrophy. The patient then presents all the symptoms of cardiac insufficiency—dyspnoea, scanty urine, and very often serous effusions. If the patient is seen for the first time the clinical picture may be that of chronic valvular heart disease, and the existence of a loud blowing murmur may easily throw the physician off his guard. Many cases terminate in this way.

Cerebral. This group of symptoms is very important and embraces many changes, acute and chronic, and cerebral hemorrhage. Transient hemiplegia, monoplegia or aphasia may occur in advanced cases of arteriosclerosis. Recovery may be perfect. It is difficult to say upon what these attacks depend. Spasm of the arteries of the brain has been suggested, but the condition of the smallest arteries is not favorable to this view. Vertigo occurs frequently and may be either simple or is associated with a slow pulse and syncopal or epileptiform attack—the Stokes-Adams syndrome.

Renal. Renal symptoms supervene in a large number of cases. A sclerosis, patchy or diffuse, is present in a majority of cases at the time of autopsy, and the condition is one of contracted kidney. This is especially seen in the senile form and not infrequently in early life.

It is a much disputed question clinically whether arterial or renal disease is primary.

Among other conditions in arteriosclerosis may be mentioned gangrene of the extremities, due to endarteritis or dislodgement of thrombi. Sudden transient paraplegia may occur, and the remarkable condition known as intermittent claudication.

DIAGNOSIS.—The most important diagnostic points in arteriosclerosis are: The patient is past middle life or bears the mark of premature senility; the superficial arteries are hard, prominent, tortuous and locomotive; the pulse is resistant, of high tension, of variable rhythm and of diminished amplitude; the heart is hypertrophied, especially the left ventricle; the second aortic is accentuated, and if

dilatation is present to any degree a systolic murmur is established either at the apex or in the left auricular area. Organic manifestations are frequent and diverse. They vary according to the seat of maximal distribution of the diseased vessels. There is in a large proportion of the cases a history of syphilis, alcoholism or physical strain; and in many the patients plead guilty to all three. There may be a family history of gout or some other constitutional disease which conduces to faulty metabolism.

TREATMENT.—The treatment of arteriosclerosis naturally falls under the following etiologic divisions: 1. Those due to toxic agencies in the blood, e. g. chronic alcoholism, lead poisoning, syphilis, diabetes mellitus, gout, rheumatism and other infectious diseases. 2. Arteriosclerosis caused by increased ingestion of carbohydrates or nitrogenous foods. 3. Cases dependent on constant hypertension, due to muscular overexercise, as in certain laborious occupations or violent competitive sports. 4. Aortic regurgitation in which the overfilling of the vessels is concomitant; also exalted tension arising from ingestion of an excess of fluids, as in beer drinkers. 5. Cases due to senile degenerative changes.

Prophylaxis should be begun early in life, restraining enthusiasm, energy and pluck, as especially seen in competitive sports, which is followed later by a crippled arterial system on which the individual must depend in after life. Another consideration pertains to the regulation of occupation, particularly during childhood and adolescence. On the appearance of any appreciable change in the arterial system, no matter how young the person, the aim should be to counteract or overcome the cause and at the same time re-establish metabolic functions. Attention must be paid to the food stuffs that furnish suitable products for both anabolism and katabolism. Oxidation—the prime factor in all katabolism—by which means albumins, sugars and fats are prepared for the economy, is greatly favored by well regulated systematic muscular exercise. This is especially true of fats, less so of proteids. The maintenance of a complete nutritive equilibrium is the most powerful means of preventing the pathological changes which always result in various forms of degenerations among which arterial changes are apt to be the earliest manifestation.

General treatment. In existing arteriosclerosis each sufferer must be minutely examined as regards the arterial changes, tension of the pulse, condition of the heart, digestive functions and the eliminating power of the kidneys. Perhaps the majority of cases are de-

pendent on gout. The use and abuse of alcohol in the gouty is not an unimportant feature.

Hygienic Measures. In those cases where overeating causes toxic symptoms —faulty metabolism—nothing is more important than a well regulated diet. Some individuals are proof against overeating and overdrinking; on the other hand, where there is distinct evidence of overeating either of the carbohydrates or the nitrogenous foods in the gouty subjects, we find that a well regulated diet is obviously helpful. Such subjects, in addition to manifesting gouty features, are, as a rule, plethoric, robust and often inclined to corpulency, and a rigid system of living must be enjoined. In these cases a restriction of food is of prime importance. Both fat producing and urea forming foods must be lessened as a rule. It is highly probable that excessive urea is irritating both to the kidneys and to the blood vessels. Granular kidney calls especially for a dietary treatment. On the contrary, spare subjects whose general tone is low and who are afflicted with arteriosclerosis, require a more generous diet including a liberal amount of fat producing foods. Relatively speaking, foods for arteriosclerotic patients are the following; milk, eggs, butter, succulent vegetables, fruits (except strawberries, bananas and tomatoes), and the farinaceous foods. Of animal foods, oysters, fowl and fish (except those that contain much protein—as salmon, mackeral, smoked herring, halibut, salt codfish, flounders, canned sardines etc.), may be taken, while beef and mutton may be taken but with caution. Mohr and Kauffman have shown that the nitrogenous excretion is practically the same with the light and the dark meats. Animal foods are beneficial rather than harmful if taken in suitable quantities. Water must be taken freely between meals to keep waste products, as uric acid and sodium urate, in solution. Gouty subjects must adopt an open air life, coupled with regular, systematic muscular exercise which increases the vigor and activity of the circulation, not only of the vascular system but of the lymphatic as well, thus tending to force off waste matter.

Exercise. Exercise will stimulate all the functions of the body. In arteriosclerosis, the blood tension is always high although it may vary in degree. Obviously, severe muscular exercise which increases peripheral resistance is inappropriate; mild exercise produces a slight temporary rise in blood pressure which falls during its continuance, hence this form of exercise favorably influences the circulation by dilating the blood paths and thus lessening peripheral resistance. Naturally it is during the early period of arteriosclerosis, or before changes in the arteries induce markedly increased resistance to the

peripheral circulation, that muscular exercises produce the most beneficial results. As regards exercise in this disease, no hard and fast rules can be laid down.

Massage. By this agent no extra work is thrown on the heart, but on the contrary, peripheral resistance is decreased and less work is thrown on the heart. By these means the daily amount of foreign material in the secretions may be increased two or three times.

Warm Baths. In this disease in which arterial tension is exalted, warm baths, which lower the tension in both arteries and veins, are most serviceable. They materially assist the process of elimination of waste materials through the sweat glands. I am satisfied that the agencies above mentioned, namely, diet, exercise, massage and baths are of major importance as compared with medical treatment in the management of this class of cases, in which poisons are circulating in the blood and these in turn are dependent on perversion of metabolism.

Medicinal Treatment. Each patient must be dealt with according to the indications. The bowels must be evacuated once daily and a course of simple tonics given now and then to promote the maintenance of nutritional activity. If cardiac failure has gone so far as to produce engorgement of the liver and lungs, with dyspnea, cyanosis and cough, venesection should be adopted without hesitation, either by the abstraction of eight or ten ounces of blood from the median basilic vein, or by the application of eight or ten leeches over the tender edge of the liver. James Barr (Brit. Med. Jour.) makes the statement that there are two classes of drugs that should always be avoided, namely, digestives and hypnotics, for if a man cannot eat or sleep there is something wrong with him and he should be treated and not palliated. As in this condition the man eats too much, his digestion fails him, the insomnia depends on high blood pressure, hence the cause in each case must be removed rather than the symptoms treated.

The thyroid preparations are spoken of in the treatment of arteriosclerosis, and it has been shown that they dilate the arteries. Iodine is often more valuable than the thyroid extract as its metabolic effects are obtained by a stimulating action on the thyroid. He prefers the tincture of iodine or the syrup of iodine with tannic acid to the more stable iodides. Adrenalin is generally pooly born, but when used with thyroid extract or iodine it occassionally does good by maintaining arterial tone and stimulating the heart.

The citrates, according to Wright, have a decided decalcifying effect on the blood. At first they lessen the coagulability of the

blood, but after prolonged use this is increased, and is due, he thinks, to the fact that they dissolve the lime salts out of the tissues. The benzoates act well in those cases of arteriosclerosis associated with kidney involvement. Uremic convulsions cease after their free administration, and they are said to convert the uric acid into the more soluble hippuric acid and to eliminate other purin bodies. They also have a cholagogue action, like the salicylates. The sulphates and hyposulphites of sodium, sulphate of magnesia and numerous other mineral waters, have a good effect in clearing out the intestinal tract and lowering blood pressure. The chlorides should be used in a limited amount as they have a depressing tendency. Calcium chloride should not be used unless indicated by a hemorrhage or heart failure. Sodium chloride should be taken only in the gouty subjects and then in a very limited amount. Many writers laud the iodides, but the best results are obtained by carefully following the above outline and by the use of nitrites. Billings says "the iodides that have been so commonly used, I have no confidence in, except in syphilitic cases." Anders believes them of no value in reducing blood pressure, but finds them of use as a "resolvent". He believes the best remedies to use are the nitrites. He recommends the following: Sodium Nitrite, grains thirty; Potassium Nitrate, drams two; Sodium Bicarbonate, drams five; Water, Ounces eight; One half an ounce to be taken three times daily. He shows tracings following this line of treatment, and the pressure of the blood fell in each of his cases.

Nitroglycerine seems to work better in some cases and should be tried in all. It should be given to the physiological effect and over an extended period of time. The nitrites whose action is so striking in lowering exalted tension are strongly indicated and most effective in that category of cases in which there is an early and marked increase in arterial pressure, and the heart in consequence is hypertrophied. To give the best results the nitrites and nitroglycerine must be given over an extended period.

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Vol. V. JUNE, 1906. No. 1

EDITORIAL COMMENT.

OUR STATE SOCIETY'S MEETING.

But a few days remain before the annual meeting is due. We have been urging a large attendance, and trust not to be disappointed. The program is an excellent one; the invited guests are men of international fame; the Committee of Arrangements has made plans for entertainments that are very attractive; the ladies will be well cared for; the meeting place, in the Conservatory Hall of the new Stephenson Bldg. is conveniently located and excellently adapted for our purposes.

So, all in all, we are satisfied that those who come will feel very well repaid indeed for their sacrifice of time. Let everyone read the program published elsewhere in this issue, and let him come prepared to discuss the papers that are of particular interest to him. Fra Elbertus once wrote: "He keeps his knowledge who gives it away"; so come, and whether on the program or not, give us your knowledge, and you will profit by it, no less than we.

"PACKINGTOWN" HORRORS.

The naked Patagonian savage sitting on a log and calmly enduring the downpour of sleet consumes with avidity such grub worms and other similar delicacies as appear to his dull but observant eye. These articles he regards, not strictly as *table,* but as dietetic luxuries.

Civilized man may have pampered his palate and departed from the standard of requirements established by nature and illustrated by the Patagonian as above, but the fact remains that he is somewhat particular about what he puts into his chylopoietic viscera—that is, if he knows it.

The recent magazine and newspaper disclosures as to methods and practices in the great meat packing houses, of Chicago especially, have tended strongly to awaken the interest and excite the attention of all.

If there is any business in the world that ought to be conducted in a clean and decent manner, it is that business which has for its object the preparation of foods for the people. The idea of eating tainted or diseased meats is repulsive even to the most wretched of mankind, and the danger of contracting disease thereby is especially recognized by medical men. The soaring climax of cupidity, disregard for all considerations of decency, and contempt for human health and life, has been reached by those sons of his satanic majesty who have trafficked in condemned meat. The burglar and the highwayman both pursue peaceful and praiseworthy callings in comparison, and by all the principles of justice and right these sinners should be as summarily dealt with under the statute law of the land. A Draconic code should be specially devised for such insidious and demoniacal criminality.

It has long been a discredit to our government that so great care has been exercised in the inspection of meat products for foreign shipment, while wholly neglecting that for domestic consumption.

The American people, as well, we suppose, as other people, are not easily moved to vigorous action; the inherent inertia under which they labor requires a violent shock to overcome it, and so it was doubtless necessary that much exaggeration should creep into the public prints bearing upon the "horrors" of Packingtown.

There are those who have recently advocated the proposition that the increase in gastro-intestinal disease which has developed in recent years, and especially the increasing prevalence of appendicitis, may legitimately be attributed to the consumption of "embalmed" food products. Even if no disease results directly from the consumption of

these food products, the tendency is to reduce the powers of resistance, thus increasing susceptibility to infection in general.

If, as an outcome of the recent investigations, adequate government inspection of the business is secured, a great good will have been accomplished, and this is something which the people now imperatively demand.

THE AMERICAN MEDICAL ASSOCIATION.

The meeting just held at Boston was an unquestioned success. Enthusiasm was everywhere apparent. The papers presented were of great merit and interest, and the prominent foreigners added lustre to the names of our well known celebrities.

Dr. Dewey's letter, on page 41, telling of some of the features of the meeting which were of surpassing merit, must be read by everyone; it is a delightfully written account of a few of the points of interest attracting the visitor.

WANTED—AN ANTI-TUBERCULOSIS SERUM.

Many have been the experiments for the discovery of an anti-tuberculosis serum. The public in particular has been treated to numerous doses of news emanating so we are told from "reliable sources," of the wonderful curative results obtained by experimenters in various parts of the world. One of the latest medical heroes is an Italian, Dr. Giuseppe Carcano, whose results are "of a truly miraculous character." In 1905 the wonderful work of a Milanese, Dr. Levy, who treated consumption by injecting an iodine preparation, were heralded abroad. In a recent statement Dr. Levy disclaims any extraordinary results and merely expresses the hope that he is on the right track. Dr. Emil v. Behring, who incurred the displeasure of the medical world last year by his refusal to divulge the method of manufacture of a serum which, he claimed, would prove curative in tuberculosis, is still putting forth reasons for withholding his method from general adoption, even in an experimental way. In a recent statement he says that he "is not prepared to make his discovery public, because, although he is theoretically certain of the value of his remedy, he has not made a sufficient number of experiments to ascertain the exact dose required. Moreover, if he distributed the remedy to veterinary surgeons for experiments with cattle he could not prevent physicians from securing it and making experiments on human beings." We are inclined to believe that the commercialization of his product has captivated this scientist, and that when the

product is once marketed, its manufacture will be claimed to be so intricate as to make it inadvisable to let others into the secret.

TWENTIETH CENTURY MIRACLES.

We cull the following "testimonies from the field," from the Christian Science Journal. Comment superfluous.

"Another time I went to a fire and got pretty wet. The next night I woke up with great pain in my chest and a bad cough. My wife got up and tried to help me. She got a mustard plaster, but I refused it; then she was going to have a doctor, but still I refused; and how I suffered till morning! Then my friend came in and gave me Science and Health again. I tried and tried to read, but could not see a word, but I kept on trying. At last I read a few lines and then I went to sleep for a little while. This trouble was called pneumonia. By 11 o'clock I got up and went to the shop, and after a little while I went up to the Christian Science reading room and had a talk with a practitioner, then went back to the shop and took up my work. I was healed. I have also been helped from the smoking and drinking habits and in many other ways."

"One day I went out on the river in a boat, and in some way or other I made a misstep and fell out in deep and swiftly running water. When I came up I tried hard to reach the boat but could not, and felt that I would go down, when all at once it came to me that God is All in all, and I felt like a new man. I got to the boat and then to shore, and went quite a way down the river to get my hat. Without an understanding of Divine Love I would have gone down."

"I would like to relate one more incident—how error was overcome by Truth. My little boy was playing and fell over in a spasm. My wife sent for me, and while I was going to the house, I kept declaring the allness of divine Mind. When I came into the house my wife was bathing him in hot water. I laid him on the couch and told her that he would be all right. I sent for a practitioner; she came in a few moments and I went back to work. In a few hours the child came to the shop all right."

Sepsis in the New Born, Caused by Gonococci. — BREHMER (*Deutsche Med. Woch.*, 1905, No. 2), reports the case of a new-born child affected with blennorrhea, that from the eleventh day commenced to lose weight, and showed swelling at both ankle joints and the left elbow, with albuminuria; right cornea threatened to perforate. Death on the 16th day. The post-mortem revealed epicardial hemorrhages, 7 ccm. of a clear dark yellow pericardial fluid, spleen somewhat enlarged, thick yellow pus in the elbow-joint, which contained gonococci. In this case Crede's method had been applied on the second day after birth, but the child had no treatment previous to the 9th day, when it was admitted to the hospital, so that the disease had fully developed. (C. Z.)

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

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NEXT ANNUAL SESSION, MILWAUKEE, JUNE, 27, 28, 29, 1906.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

ONCE MORE, THE COUNTY RETURNS—THE ANNUAL MEETING.

Returns have been received from all the county societies but six (6). The number of members reported for 1906 by these societies is only seven less than the total membership of the same societies during 1905. This loss will be more than made up before the Annual Meeting, so that they may appear in the "final summing-up". To help on the The original number of county societies was 62. In three of these the organization seems too weak to make it worth while to keep it up, viz: Forest-Florence, (3 members), Marquette (7), and Taylor (6). It has been planned to unite these three with other societies—Forest with Oneida, Florence with Marinette, Marquette with Columbia, and Taylor with Price,—reducing the number of societies to 59. This "hyphenating" process should be effected at once—but "large bodies move slowly". If the formal union of these societies shall not be speedily made, the individual members of these smaller societies should at once make application for membership in the larger societies adjoining.

To date 25 societies show a *gain* over total membership in 1905. Seven are the same as last year, while 22 show a *loss*. The largest gains are in Monroe and Waupaca (7) and Brown and Marathon (6). A blank with the following enquiries has been sent to each county secretary. It is the earnest wish of the state secretary that the replies shall be made as fully and carefully as possible and the blanks promptly returned. They will contain the date for the annual report to the State Society.

DR.....

Sec'y.....Co. Med. Soc.

DEAR DOCTOR—I enclose blank form, which kindly fill out *at once* in duplicate, and send one copy to your councilor, and one copy to the State Secretary, Dr. C. S. Sheldon, at Madison, together with delegate's certificate.

Report of .....

COUNTY MEDICAL SOCIETY.

1. No. members in good standing (annual dues paid) June 10, 1905?
2. No. members in good standing (annual dues paid) June 10, 1906?
3. Loss..... Gain?.....
4. Number profession in county eligible and non-affiliated?
5. Why? Answer fully, and suggest methods toward affiliation.
6. No. meetings held from June 10, 1905 to June 10, 1906?
7. Average attendance? ..... Greatest? ..... Least?.....
8. No. papers read?
9. Do you hold regular monthly, or quarterly meetings?
10. Do you print annual or semi-annual programs, or one for each meeting separately?
11. Can you meet late in the afternoon or evening to better advantage than earlier in the day?
12. Has there been an increased interest in the scientific work of the society the past year?
13. Has the professional and fraternal spirit improved?
14. Has your delegate been elected for 1906 and will he surely be at the State meeting?
15. How many visits has your councilor made you in the past year?
16. Date and place of meetings for coming year?
17. Report all deaths and removals in society for past year.
18. Remarks, suggestions, etc.

The most essential factor in the success or failure in our present plan of organization is the county secretary. Upon him lies, practically, the responsibility for the maintainance and growth of the county society. The work this year has been better than before, and some of the secretaries, especially, can not be commended too highly for their faithful and conscientious efforts. But in many of the counties, much still needs to be done before the Annual Meeting. The canvass has not been complete and thorough. Make one more final effort to bring in those who are "slow", or indifferent, or careless. Make the "round up" as complete as you possibly can, and send in the names *at once*, so that they may appear in the "final suming-up". To help on the good work the following letter has been sent to all "delinquents".

DEAR DOCTOR:

I notice with extreme reget that you have not yet paid your dues for 1905 to the Secretary of your County Society, and that in consequence your name is not enrolled as a member of the State Society. Very likely this is because of oversight or carelessness, and, if such is the case, I sincerely hope you will send in your dues at once, and thus become reinstated in membership. I thoroughly believe that, in so doing, you will not only aid in this great work of medical organization, but that your personal interests demand such action as well. It seems to me that you cannot afford to refuse to be a part of this great movement. Moreover, you need your county medical society, and the society needs you; we want every good man in the state, and, all united, we shall be able to accomplish great things in the future. Our success thus far completely vindicates the wisdom of this new departure, and we feel perfectly justified in asking you to help carry on the good work so successfully begun.

Will you kindly do your part?

Fraternally yours,

C. S. S. *Secretary.*

THE ANNUAL MEETING.

The completed program of the Annual Meeting appears in this issue of the Journal. All will agree that its attractiveness, as well as its usefulness, are much increased by the brief synopses which are added. The members can prepare more intelligently their discussion of the papers, and in this way a more general discussion will be encouraged. Select the subjects in which you are interested, and come prepared to add something, briefly and concisely, out of your own practical experience. This annual state meeting should be an actual gathering-in of the accumulated experience and wisdom of all. The *papers* should be merely the *text.*

Once more—don't labor under the delusion that it doesn't pay to go to a medical society meeting; as a matter of fact, you can't afford not to go. You will notice that the most successful doctors—with the best practice—are pretty much always at the meeting. And their success is very likely due to the fact that they get out of the rut, and rub up against their fellows often enough to sharpen their wits and become better prepared for their work. Without doubt this is good sound doctrine, and you will do well to act on it. So let us all come together once more—not only for our scientific discussions—but also to become better acquainted and to promote more truly a genuine fraternal and professional spirit. *C. S. S.*

PROGRAM

SIXTIETH ANNUAL MEETING

OF THE

STATE MEDICAL SOCIETY OF WISCONSIN

AT MILWAUKEE, JUNE 27, 28, 29, 1906,

Conservatory Hall, Corner Milwaukee and Mason Streets.

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H. E. DEARHOLT, W. B. HILL,
F. PFISTER, N. M. BLACK, A. W. GRAY.

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A W. AKERLY, O. A. FIEDLER,
V. H. BASSETT. WILHELM BECKER.

DELEGATES TO THE A. M. A.

W. T. SARLES, L. F. BENNETT, W. H. WASHBURN.

ALTERNATES.,

C. S. SHELDON, J. M. DODD, A. H. LEVINGS.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION,

G. E. SEAMAN, J. J. MCGOVERN, W. T. SARLES,

ANNOUNCEMENTS.

1. Papers are limited to twenty minutes, and to members taking part in general discussion, five minutes each. No member shall speak more than once in each discussion except by permission of the Society.

2. Papers must be typewritten and handed to the Secretary, after reading, for publication in the Journal.

3. Alterations made in papers after they are in type, as well as all drawings and illustrations, will be made at the expense of the author.

4. Upon his arrival at the meeting each member will register at the Office of Registration and Credentials, and receive a badge and a Certificate of Membership. Office open at 9 A. M. Wednesday.

5. Half Fare to Milwaukee.—On account of Democratic Convention, half rate tickets may be purchased on all roads on June 26 and 27, good to return until June 30.

6. The Council will meet on each day of the session, time and place announced later.

7. The House of Delegates will hold its first meeting at the Rooms of the Milwaukee Medical Society, Tuesday, June 26th, at 8:00 P. M.

8. Send pathologic specimens to Dr. A. W. Akerley, Goldsmith Building.

SPECIAL NOTICE.

The Milwaukee Medical Society will give a complimentary smoker to the members and guests of the State Medical Society of Wisconsin, at their rooms in the Goldsmith Building, Wednesday evening, June 27th at 8 o'clock.

There will a steamboat ride to Whitefish Bay for members and their ladies—with dinner—on Thursday evening, June 28th. The boat will leave the dock at Grand Avenue bridge at 6 P. M. and return to the same dock in the evening.

The Pathologic Exhibit will surpass anything ever before attempted at our meetings. Specimens have been secured from the East, from individuals, hospitals and colleges, and a splendid array of fresh organs illustrating various forms of bovine tuberculosis will be on exhibit.

PROGRAM.

WEDNESDAY JUNE 27, 1906.

11 A. M.

Call to order by the President, J. R. Currens.

Invocation, Rev. H. H. Jacobs.

Address of welcome, Mayor S. M. Becker.

Response by the President of the Society.

Report of Committee of Arrangements, A. T. Holbrook, Chairman.

Report of Program Committee, A. J. Patek, Chairman.

Report of Chairman of Council, W. T. Sarles.

2 P. M.

Address of President, Dr. J. R. Currens.

1. Purpura. Dr. W. H. Neilson, Milwaukee.

   History. Varieties. Etiology. Grave import of secondary forms. Symptoms. General and specific treatment.

   Discussion opened by Dr. G. H. Fellman, Milwaukee; Dr. J. Purtell, Milwaukee.

2. Apoplexy. Its Diagnosis and Treatment. Dr. U. O. B. Wingate, Milwaukee.

   Vital statistics incomplete. More accurate returns by physicians necessary. Diagnosis of character and location of brain lesion necessary as a basis for intelligent treatment. Chronic endarteritis, the most common cause; syphilis. Differential diagnosis between hemorrhage and thrombosis and embolism difficult. Condition of circulation the key to treatment.

   Discussion opened by Dr. W. A. Gordon, Winnebago; Dr. L. H. Pelton, Waupaca.

3. Surgical Shock. Dr. James S. Reeve, Appleton.

   Preliminary considerations. Shock a state or condition rather than a disease. Failure to adjust internal to external conditions. Definition of shock. Local and general shock. Dosage of shock—why sometimes mild and sometimes severe. Vaso-motor paralysis. Inspissation of the blood. Treatment. Three main types of shock, and appropriate remedies. Reasons for conflicting opinions as to various kinds of treatment. Conclusion.

   Discussion opened by Dr. J. R. Barnett, Neenah; Dr. J. F. Pritchard, Manitowoc.

4. The Relation of Blood Pressure to Surgery. Dr. A. H. Levings, Milwaukee.

   Causes which influence blood pressure. Blood pressure before and after operation. The effect of medicines upon blood pressure. Conclusions.

   Discussion opened by Dr. H. Reineking, Milwaukee; Dr. F. Shimoneck, Milwaukee.

Call to order in General Session by the President to receive Report of House of Delegates.

5. Treatment of Sepsis. Dr. John M. Dodd, Ashland

General considerations of sepsis. Conditions to be met in treatment. Remedies and other therapeutic measures. Local and constitutional results.

Discussion opened by Dr. C. W. Oviatt, Oshkosh; Dr. W. E. Ground, Superior.

6. A New Method for the Reduction of Fractures of the Lower Extremity Dr. Charles H. Lemon, Milwaukee.

Treatment of fractures systematized by Sir Astley Cooper. Plastic dressings, starch and plaster-of-paris. Probable reasons for adoption generally of Buck's extension and Hamilton splint. The ambulatory treatment—reasons for its more general adoption. Description of new apparatus for making temporary extension, enabling surgeon to accurately adjust fragments while plaster cast is applied. Report of cases.

Discussion opened by Dr. Byron C. Meacher, Portage; Dr. Stanton Allen, Milwaukee; Dr. O. C. Thienhaus, Milwaukee.

8 P. M.

Smoker at the Rooms of the Milwaukee Medical Society. Goldsmith Building.

THURSDAY JUNE 28, 1906.

9 A. M.

7. The Benefits of Modern Therapeutics. Dr. S. R. Moyer, Monroe.

Degree of attention given to therapeutics at the present day. Benefits derived from therapeutic agents other than drugs. Advantages of the newer therapeutic agents. Therapeutics of modern surgery. Benefits derived from preventive medicine.

Discussion opened by Dr. J. F. Pember, Janesville; Dr. Herman Gasser, Platteville.

8. Negligence of the Profession in its Duty to Secure the Establishment of Temporary Detention Quarters for the Alleged Insane. Dr. J. P. McMahon, Union Grove.

Introduction. Humantarian legal and economic indications. History of agitation in Wisconsin. Present law, and neglect of authorities to employ means which it affords. Conclusions recommending appointment of committee to co-operate with county societies in securing necessary quarters.

Discussion opened by Dr. W. F. Becker, Milwaukee; Dr. Walter Kempster, Milwaukee.

9. Some conditions Peculiar to Women. Dr. F. W. Epley, New Richmond.

Puerperal eclampsia and hemorrhage. Cause, prevention and treatment.

Discussion opened by Dr. H. E. Perrin, Star Prairie; Dr. C. A. Hayes, Chippewa Falls.

10. Some General Considerations on the Diagnosis and Treatment of Injuries of the Eye. Dr. G. E. Seaman, Milwaukee.

Great interest that attaches to all injuries of the eye on account of possible loss of vision. Complete history of case essential. Prompt and intelligent treatment at the outset of great importance, and based largely upon broad principles of surgery. Diagnosis, treatment, classification of injuries. The use of Roentgen Ray in diagnosis.

Discussion opened by Dr. P. H. McGovern, Milwaukee; Dr. F. T. Nye, Beloit.

11. Tuberculosis of the Genito-Urinary Organs. Dr. Edward Evans, La Crosse.

Tuberculosis of the peritoneum often genital in origin. Back in hands of the surgeon to stay. Radical operation demanded where possible. Illustrative cases. Tuberculosis of the male genitals—illustrative cases. Tuberculosis of kidneys and bladder. Importance of early and accurate diagnosis. Methods of diagnosis. Rorsing's conclusions and Kelly's summary of diagnostic points. The duty and responsibility of the family physician.

Discussion opened by Dr. V. H. Bassett, Milwaukee; Dr. C. W. Oviatt, Oshkosh.

11:30 A. M.

Address by Dr. John H. Musser, Philadelphia.
"Pancreatitis".

2 P. M.

12. Pneumonia. Some Clinical Observations. Dr. Julius Noer, Stoughton.

Pneumonia a symptom of an acute infectious disease, whose clinical phenomena and pathological findings are usually quite characteristic. Probably due to mixed infection or toxaemia. Old views confusing and misleading. Treatment symptomatic, not specific.

Discussion opened by Dr. H. B. Faville, Chicago; Dr. W. H. Washburn, Milwaukee.

13. Tuberculosis Sanatoria and Treatment. Dr. C. A. Harper, Madison.

Functions of state sanatoria. Functions of private sanatoria. Educational importance of same. Treatment of tuberculosis at home.

Discussion opened by Dr. Gustav Schmitt, Milwaukee; Dr. F. F. Bowman, Madison.

14. Muco-Membranous Colitis. Dr. Lawrence Hopkinson, Milwaukee.

Etiology from a new standpoint. Pathology. Symptoms. Differential Diagnosis. Treatment.

Discussion opened by Dr. W. C. F. Witte, Milwaukee; Dr. G. H. Fellman, Milwaukee.

15. Nervous and Mental Diseases in General Practice. Dr. Richard Dewey, Wauwatosa.

The lamentable lack of instruction in these diseases in medical colleges of the past and even up to the present time. The tendency of the general practitioner to adopt inappropriate measures of treatment in psycopathic cases, using sedatives and narcotics too freely; sending patients away for travel who are in no condition to benefit by this measure; advising patients there is nothing the matter with them, or that "it is all imagination"; also that the disagreeable symptoms will soon "wear off" and no special treatment is necessary. The powerful influence of the mind over the body, both for good and ill, and necessity for reckoning with this agency in measures taken.

Discussion opened by Dr. W. F. Becker, Milwaukee; Dr. A. J. Patek, Milwaukee.

Call to order in General Session by the President to receive Report of House of Delegates.

16. Endometritis. Dr. J. M. Evans, Evansville.

Diagnosis easy. Prophylaxis very important. Financial status of patient a factor. Positive indications for treatment.

Discussion opened by Dr. J. F. Pember, Janesville; Dr. W. F. McCabe, Beloit.

17. Static Disorders of the Feet. Dr. H. E Dearholt, Milwaukee.

A consideration of the condition commonly known as "flat-foot". Review of the symptoms, etiology and practical treatment, with special reference to the importance of the recognition of the condition in general practice.

18. Remarks on Surgery of the Naso-Pharyngeal Structures. Dr. M. Iverson, Stoughton.

Turbinectomy as an adjuvant to a cure of many diseases of the organs connected with respiratory system. Over ventilation as a cure for diseases originated from under ventilation. Use of bichloracetic acid on cut wounds to prevent secondary infection and bleeding.

Discussion opened by Dr. H. V. Wurdemann, Milwaukee; Dr. Herman Stolte, Milwaukee.

8 P. M.

Banquet at White Fish Bay.

FRIDAY JUNE 29, 1906.

9 A. M.

19. Obstetrical Responsibility During Gestation. Dr. W. F. McCabe, Beloit.

Relation of public to the services of the physician. Clear understanding between patient and physician. Necessity of repeated urinary examinations. Surroundings of the patient. Pecuniary conditions.

Discussion opened by Dr. Julius Noer, Stoughton; Dr. H. Sylvester, Milwaukee.

20. The Medical Aspects of Exophthalmic Goitre. Dr. W. H. Washburn, Milwaukee.

Etiologic and pathologic conditions. Methods of treatment based on various theories and the results of the same. Report of cases. Conclusions as to the present status of the subject.

Discussion opened by Dr. T. L. Harrington, Milwaukee; Dr. A. J. Patek, Milwaukee.

21. Surgical Treatment of Goitre. Dr. H. A. Sifton, Milwaukee.

Introductory. Surgical anatomy of the gland. Relation of the important structures to the enlarged gland. Technic of removal of gland. Difficulties encountered. Care after removal. Complications.

Discussion opened by Dr. C. W. Oviatt, Oshkosh; Dr. R. G. Sayle, Milwaukee.

22. The Basal Principles of Oral, Nasal, and Facial Deformities, with Special Reference to Hare Lip and Cleft Palate. (Stereoptican views). Dr. Geo. V. I. Brown, Milwaukee.

Considerations of prenatal and postnatal conditions that have an influence in the development of deformities. Stereopticon views of sections of human embryo heads, and pictures of faces of infants, children and adults showing nasal or oral defects of varying degrees, before and after operative correction.

Discussion opened by Dr. A. J. Ochsner, Chicago; Dr. A. H. Levings, Milwaukee.

Call to order in General Session by the President to receive Report of House of Delegates.

11 A. M.

Address by Dr. A. J. Ochsner, Chicago.

"The Clinical Aspects of Stomach Surgery."

23. Psoriasis. Dr. G. H. Lawrence, Galesville.

Irregular distribution, variable course, and necessity of general knowledge of practice of medicine in its treatment.

Discussion opened by Dr. W. R. Cheever, Kenosha; Dr. O. H. Foerster, Milwaukee.

HOUSE OF DELEGATES.

Tuesday, June 26th, 1906.

8 P. M.

Meeting of the House of Delegates at the rooms of the Milwaukee Medical Society. The order of exercises will be as follows:

1. Roll call.
2. Reports of delegates to the American Medical Association.

3. Reports of Councilors.
4. Report of Treasurer.
5. Report of Secretary.
6. Election of two delegates to the American Medical Association.

Election of committee on scientific work.
Election of committee on public policy and legislation.
Election of Councilors of 3rd and 4th districts.
Election of Councilors on nominations—(10).

7. Miscellaneous business.

GRANT COUNTY MEDICAL SOCIETY.

The following program has been announced for the balance of the year: At the meeting of September 13th, at Lancaster, papers will be read by Drs. Godfrey, Oettiker, and Critchlow. On December 13th, meeting at Platteville, papers will be read by Drs. Armstrong, Doolittle, Lewis, and a surgical clinic will be conducted by Dr. W. Cunningham.

Dr. J. L. Bradfield of LaCrosse is reported ill as a result of the severe strain he underwent by his labors for the Citizens' League, of which reform organization he was president.

The danger of the Roentgen Ray to the operator is being recognized. The unfortunate death has been announced of Dr. Louis A. Weigel of Rochester, one of the early experimenters with the x-ray in this country. He died after several operations had been performed in an effort to stay the progress of a malignant disease that necessitated the removal of his right hand, several fingers of the left, and the muscles of the chest.

MILWAUKEE MEDICAL SOCIETY.

Meeting of May 8, 1906.

Dr. Bertram W. Sippy of Chicago addressed the Society on the subject of *Idiopathic Dilatation of the Oesophagus due to Cardio-Spasm* and exhibited a specimen from a case of this condition. He spoke of the importanec of watching patients eat who are subject to persistent vomiting. The difficulty in swallowing and the character of the vomiting which is a mere regurgitation of the food swallowed mixed with mucus but without digestive juices, and which is not accompanied by nausea, will often enable a correct diagnosis to be made at once.

His method of treating the condition is by over-stretching the contracted cardia by means of a rubber bag enclosed in silk. The results have been most satisfactory.

Dr. W. T. Nichols reported two cases of *Carcinoma of the Male Breast* in which radical operation was followed by metastasis and death. In both cases secondary growths in the lower portion of the spinal column were present.

In the discussion Dr. J. L. Yates stated that out of six cases of carcinoma of the male breast which he had seen two had developed spinal metastasis.

Meeting of May 22, 1906.

Dr. R. G. Washburn presented a paper on *Toxemia of Pregnancy* reviewing the recent literature on the subject and reporting a case of pernicious vomiting in which acetone and diacetic acid were found in the urine with a normal ammonia coefficient. The condition resisted all treatment and finally it was necessary to empty the uterus.

The subject was discussed by Drs. M. R. Hewitt, W. H. Washburn, E. Copeland, and G. J. Kaumheimer.

Dr. C. F. Hardy presented a paper on *Primary Carcinoma of the Liver* and reported a case of this rare condition.

In the discussion Drs. J. M. Beffel, W. T. Nichols and R. G. Sayle took part.

Dr. H. Greenberg reported two cases of extra-uterine pregnancy and exhibited the specimens. He also showed a portion of the lower jaw of a boy 17 years of age removed on account of sarcoma.

H. E. DEARHOLT, M. D., *Secretary.*

THE BOSTON MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

(Special Correspondence.)

Boston, June 8th, 1906.

(Dr. Richard Dewey very obligingly consented to write for the Journal an account covering various features of the recent meeting of the A. M. A. at Boston. We beg to extend to him our thanks for his courtesy in sending us so interesting a letter.—Editor.)

To the Editor:

I will try to tell you a few of the things that have come under my observation in attending this greatest of all medical meetings, premising that my account will be rather scrappy from the haste in which it is written, the immensity and variety of the subject, and, it may be, possibly too much from the standpoint of practice in my particular field, that of nervous and mental maladies.

But before taking up my proper subject I wish to utter a word of warning against "special" trains. The "Medical Special", so called, over the L. S. and M. S. from Chicago to Boston, landed us here 5 or 6 hours late, between 8 and 9 P. M. instead of at 3 P. M. as promised, causing many to lose important engagements. I would not speak of it were it not that the same thing occurs year after year, and I hope our committees on transportation will not continue to be "bamboozled" by specious representations of the wily passenger agent in future years.

However, we arrived at last and were at once enveloped in the friendly atmosphere of hospitable, attractive, cultivated Boston, in which city the physician and the medical profession are honored, and perhaps deserve to be honored, as nowhere else in the world. The opening meeting, Tuesday morning, in the Mechanics Building, was enough to expand with pride the heart of the humblest devotee of medicine. Edward Everett Hale prayed for us, President Eliot of Harvard, the Governor of the great commonwealth, the mayor of Boston, to say nothing of our own illustrious ones, all joined in a welcome that had a glow and a charm that came home to all.

I extract here from the Boston Transcript some paragraphs conveying interesting details.

"Formal exercises by way of opening the fifty-seventh annual session of the American Medical Association took place in Mechanics Hall, this morning, in the presence of a gathering of physicians from all over the country and Canada, members of their families, and many leading celebrities from foreign countries.

The entrance into the hall was of a most inspiring character. The procession formed in the banquet hall, and, headed by the band and a couple of stalwart police officers, entered at the rear and proceeded up the main aisle to the strains of a popular march. Governor Guild led the way, having on his arm the venerable Rev. Dr. Hale. Behind them marched Dr. Herbert L. Burrell, escorting Mayor Fitzgerald. Then followed the other invited guests, the officers of the association, the members of the committee of arrangements, each being escorted by some local physician. The chief marshal was Dr. Paul Thorndike, and he had as aid Dr. L. T. Wilson; also a large corps of assistants.

Seated on the platform when the exercises were called to order were the presiding officer, the special guests and the ex-presidents of the association, all in the front row. They were President Lewis S. McMurtry, with Governor Guild on one side and Rev. Dr. Hale on the other; Mayor Fitzgerald, President Eliot of Harvard University, President-elect William J. Mayo of the Association, Dr. Arthur T. Cabot, president of the Massachusetts Medical Society; Dr. Herbert L. Burrell, chairman of the local committee of arrangements; and these ex-presidents of the A. M. A.: Dr. Wyeth, Dr. Keen, Dr. Reed, Dr. Billings, Dr. Mathew, Dr. Musser and Dr. Henry O. Marcy of this city.

After a few brief exchanges of courtesies Dr. Lewis S. McMurtry, the retiring president of the association, stepped to the front and extended a cordial welcome to the association and its friends. Then he introduced Dr. Hale who pronounced the invocation.

Governor Guild was next introduced, and he was given a most cordial greeting from the entire assemblage.

President Eliot said:

I welcome you to an exceptional community in which physicians and surgeons have for generations held equal rank with the members of all other learned and scientific professions. Massachusetts has long recognized in physicians and surgeons as a class powerful contributors to the public health and happiness, to the advancement of medical knowledge, to the industrial and economic interests of the community and to its moral welfare. For generations this fortunate community has enjoyed the privilege of knowing intimately physicians who illustrated the highest qualities of human nature—men courageous and resolute under responsibility, imperturbable in the presence of danger, conservative and yet bold, in professional relations patient, cheerful and tender, diligent learners throughout life, and diligent teachers of sound doctrine concerning health and disease, virtue and vice.

I welcome you as promoters of public health and efficiency to a community which under the guidance of physicians has effectively protected its water supplies, regulated the production and sale of milk, foods and drugs, controlled smallpox, typhoid fever and diphtheria at the public expense, established humane treatment for the insane and the defective, and supported admirable hospitals for the sick and injured, partly by the endowment method and partly at the public charge. All these beneficent things it has done under the guidance and at the instigation of wise physicians, and accordingly this community pays to your profession the homage of its admiration and its gratitude.

I welcome you as members of a profession which relies for success and progress on careful observation, limited inference, and exact recording—three scientific methods which are of universal application and utmost promise in human affairs."

Mr. Richard T. Cabot, who next was introduced, brought the greetings of the Massachusetts Medical Society, of which he is president. He also gave special welcome to the foreign guests, many of whom, he said, were not strangers.

It is enough to say of President Mayo's address that it was equal to the occasion and full of optimism as well as practical suggestion.

I have called this the "greatest of all medical meetings". It broke the record in attendance, being somewhat in excess of 4,500 registered members of the A. M. A. and, counting guests, auxilliaries of various kinds, members of the families, managers of exhibits, etc., 15,000 is a moderate estimate of the number brought here by the meeting. This

is certainly the largest medical gathering ever brought together in our country, and, considering the numbers and territory to draw from, probably exceeds any assembly of a medical kind that has occurred in Europe—even international congresses.

One subject that has been very prominent in the proceedings of the societies here has been the medical aspects of education and of the school. In the public session of the Am. Academy of Medicine, Dr. G. Stanley Hall of Clark University read his paper on "The Advantages or disadvantages of coeducation after the age of 12 years". The academy was considering the topic, "How may the medical and teaching professions cooperate to improve the moral, mental and physical condition of the young?" Dr. Hall won the applause of his hearers time and again, and especially was this true of the male portion of his audience, whose views the noted educator seemed to voice at every point.

Dr. Hall said the dawn of puberty has marked the separation of the sexes in all ages, and that coeducation came about in this country when girls sought the higher education and the democratic spirit of the times allowed it. The boys' schools were already established and in full operation, and as a matter of economy the girls were allowed in them. After a 30 years' war to open the college doors to girls we drifted into this condition, and now the problem is fully on, and the merry war as to the advisability of the movement and its results will continue.

Dr. Hall created considerable amusement by his reference to the recent petition of 109 of the Boston public school teachers for coeducation on the ground that the boys are more difficult to manage than are girls. "Of course they are, " said Dr. Hall, "and they ought to be, especially for women teachers. This trait ought to be developed rather than repressed. A good teacher of boys ought to be paid more than a teacher of girls."

"There is something wrong with the boy of from 12 to 16 years of whom the average woman school teacher will love to say, 'He is a perfect gentleman'. There is something wrong, too, with the girl who at that age is not a lady. It is not a time to yoke the boys up with the girls".

The American Neurological Association, comprising the ablest neurologists of the country, was in session here and also gave one of its sittings to education and the school. Dr. B. Sachs of New York read a paper with the title "The Relation of Schoolwork to the Mental Fatigue of Children". The discussion showed there was a consensus of opinion that there is little ground for the idea advanced in some

quarters that overwork in school is injurious to children. The cases in which breakdown occurs are those of the exceptional, neurotic, backward or moderately weak minded children who cannot conform to the standard which is safe and correct for the average child or youth. It was urged that all children should receive a careful and competent medical examination and the exceptional ones be provided for in other ways if possible, but the progress of the great mass should not be hindered by the small body of exceptional beings. It was also represented that much depends upon the teachers, and that many of these, especially women teachers, break down in their work, being neurotic and overtaxed. It was claimed in the discussion following the paper that teachers should pass a medical examination as well as children.

One session of the Section on Mental and Nervous Diseases of the A. M. A. was of both general and special interest. This was the session on Wednesday afternoon in which S. Weir Mitchell, of Philadelphia, presented a very unusual case of paralysis of the pharynx of 4 years' standing with alimentation during the whole time by means of an oesophageal tube. And in this session also occurred a very instructive discussion on brain tumors and brain surgery, by leading authorities, and with interesting papers for the text. The first paper by Dr. Wm. G. Spiller of Philadelphia, was on the advisability of operation in cases of brain tumor, and the idea was advanced that irrespective of removal of the tumor, and in cases even where the probability was that it could not be removed, still operation was defensible and even advisable for relief by "cerebral decompression", and a large number of cases was reported where months and years of comparative comfort had been added to the life of those suffering in this way, although the tumor itself could not be removed; this procedure was likewise advocated in cases where there was a recurrence of the growth.

This was followed by a paper by M. Allen Starr of New York on cerebral operations in general, under the headings of epilepsy, tumor, thrombosis, imbecility, etc. The conclusions were unfavorable to operation in the very large percentage of epilepsy cases, except Jacksonian. The operation for improvement of conditions of idiocy and imbecility was discredited, but for tumors and cerebral hemorrhage there was much more to be said, and much progress had occurred and was still to be expected in those cases. Very interesting discussion was contributed by Knapp of Boston on statistics of operations, and by Mills of Philadelphia and others on localization.

I wish I had time to speak of some of the admirable and unique supplementary features of the meeting. One of the greatest of the

wonders of Boston is the New Harvard Medical School. The magnificent white marble buildings upon which over $4,000,000, contributed by J. P. Morgan, Rockefeller and others, have been expended, take one back to the palmiest days of ancient Greece so far as architecture is concerned, and forward to the dawn of a wholly new era in medical education. The grandeur of these buildings must be quite unequalled be anything in the way of a medical foundation anywhere else in the world. Three sides of a magnificent quadrangle many hundred feet in length and width are surrounded by the five buildings. At one end stands the marvelously beautiful administration building, and at the other are the entrance gates, while on each side are four noble buildings for anatomy, bacteriology, pathology, etc.

I should like to speak of the splendid exhibits, of the interesting clinics, of the complete arrangements made for entertainment, etc., but both my time and I fear your patience may be exhausted by this hurried account so unworthy of the splendid occasion it commemorates.

Faithfully yours,

RICHARD DEWEY.

ABSTRACTS.

Fat Embolism of the Lung after Fractures.—F. GREGORY CONNELL, Salida, Col. (*Journal A. M. A.*, February 25), remarks on the rarity of American literature on this subject He reports two cases. In practically all fractures, he says, there is more or less fat embolism, according as there is comminution, rough handling, etc. It may also follow orthopedic operations, surgical procedures, inflammations, fatty liver, etc., and the most striking feature is the preliminary period of euphoria, while the most important clinical symptom is the presence of fat in the urine or sputum. Later respiratory and cerebral symptoms may appear at any time up to the fifteenth day. The condition is frequently overlooked or confused with shock, septicemia, pulmonary embolism, effects of anesthetics, etc. As we do not know its frequency its prognosis is uncertain. It probably occurs in a mild form after a large proportion of fractures and is unrecognized. The only treatment that is practically available is judicious heart stimulation.

Experiments on the Visibility of Roentgen Rays.—CRZELLITZER (Roentgen Congress, *Berlin. Klin. Woch.*, 1905, No. 20, p. 627), proved that the retinal center, an area of about 25 mm., is blind for Roentgen rays. Therefore all efforts with Roentgen rays to enable the blind to read are in vain. (C. Z.)

Investigations on the Value of Crede's Drop. — URATA (*Zeitschr. für Aug.*, XIII., p. 242), investigated the influence of astringent and antiseptic eye waters on the germ content of the conjunctival sac of rabbits. The tear points being sealed by cauterization, a definite quantity of a bacterial culture was inoculated, and a drop of the solution to be tested was instilled. After a certain time a loop of the contents of the conjunctival sac was taken out for culture and the bacteria counted. The results representing the germ content of the conjunctival sac, were compared with those of the other eye, which had also been inoculated with the same quantity of the same kind of bacteria, without any or with instillation of a different kind of solution. The bacteria used were the staphylococcus pyogenes aureus, streptococcus pyogenes longus, pneumococcus, and gonococcus. The solutions tested were 2% and 1% nitrate of silver, 1% acetate of silver, and ¼% sulphate of zinc. 2% nitrate of silver influenced the bacteria most, ¼% sulphate of zinc least, especially staphylococci. The action of 2% nitrate of silver, in comparison with the other solutions, was less striking on streptococci, pneumococci and gonococci. The latter two are quite rapidly killed by ½% nitrate of silver. Since gonococci in blennorrhea neonatorum are frequently associated with staphylococci, a 1% solution of silver nitrate is preferable as it acts fairly energetically and rapidly on all kinds of bacteria and irritates the eye but slightly.

These investigations lead to the recommendation of the following measures for preventing infectious conjunctivitis, especially gonococcal, in the newborn: Immediately after birth the skin of the lids and the surroundings of the eyes are carefully cleansed with boiled luke-warm water or 2% solution of boric acid, or a disinfectant which does not irritate the skin, as oxycyanate of mercury 1:1000, by means of cotton or soft linen, under simultaneous profuse irrigation with one of these solutions. After again cleansing the hands, 1 or 2 drops of a fresh 1% solution of silver nitrate is instilled, and spread all over the conjunctival sac by carefully pulling apart the lids several times.

(C. Z.)

Technique of the Plaster Bed.—MAX HANDEK (*Zentralbl. f. Chir.*, No. 7, 1905), describes his method of making a plaster bed for spondylitis as follows:

Nine to twelve pieces of starch bandage gauze are prepared 8 to 12 cm. longer and wider than the desired bed, which should extend from the border of the hair on the forehead to the middle of the thighs and laterally to the anterior axillary lines. Impregnate the pieces with the best dental plaster, arranging them in layers of three, and loosely wind. The patient is placed in the desired position on a frame and the body carefully greased, a double layer of white gauze saturated with oil being placed over the head. The soaked plaster bandages are put on one after another, being unrolled from head to foot, each layer thoroughly rubbed on the body especially about the neck, cutting into it if necessary. The sides especially should be close fitting. Superfluous gauze is folded over and the edges finished with starch or plaster bandages. For children three or four bandages are sufficient, in adults four to five. Shavings or light iron rods incorporated in various places in the bed will strengthen it. (G. P. Barth.)

Surgeons Plaster Bandage in the Treatment of Static Flatfoot.—GUSTAV MUSKAT (*Deut. med. Wochenschr.*, July 20, 1905), has used the following bandage in 100 cases with good results. Patient placed on chair and foot placed on another equally high and resting on heel to relax all muscles. The first strip 4 cm. wide begins inner side over dorsum around plantar in region of Os naviculaire and carried up inner side of leg to tibial tuberosity bridging the ankle. The second follows the first slightly overlapping, the third follows second, etc., till the hollow of the foot is covered. The upper ends are then fastened by a strip extending almost around the leg. A second is applied about the middle of the leg, and a third applied just above the malleoli, this being most important as it brings the plaster against the leg. A considerable pull is exercised on the foot which is thus pulled into position. The bandage is left on two weeks and renewed if necessary. During the wearing of the bandage the patient is taught to walk with feet parallel or to toe in somewhat. (G. P. Barth.)

A Case of Spontaneous Dislocation of the Eyeball.—LEVIN (*Berl. Klin. Woch.*, 1905, p. 1105). A man, aged 53, had exophthalmus (no vascular murmurs, no Graves' disease) of both eyes from early youth, as long as he could remember. His father, his father's brother and several other members of the family, and the daughter of the patient also had very prominent eyes. The affection did not inconvenience him until within the last few weeks he suddenly awakes from his sleep with intense pain and finds the left eyeball, exceptionally also the right, out of the orbit in front of the lids, *i. e.*, a complete dislocation of the globe, which he can replace with his fingers. The dislocation at once takes place when the patient stoops his head towards the left side, or if the lids are stroked backwards under moderate pressure on the eyeball. Excepting a slight conjunctivitis, and incipient cataract of the left eye, the eyes are normal. V R 6/6, L 6/8. During dislocation the pupil is wider and does not respond to light, and, on ophthalmoscopic examination, the disc is slightly veiled, somewhat pale, its borders indistinct, the arteries narrow, i. e., of the same appearance which can be elicited by pressure with the finger on any eye. After reposition, these symptoms disappear at once, only the injection lasts a little longer. H. could find no similar case in literature.

The patient suffers from general disturbances of the circulation; the dullness of the heart extends over the right margain of the sternum, he has emphysema of the lungs, varices on the legs, the face is cyanotic, and he suffers from epistaxis. L. assumes stagnation in the veins of the orbit, which in horizontal position during sleep apparently grows to such intensity that the eyeball, prominent by hereditary predisposition, is completely crowded out of the orbit. Probably the fasciæ, which under normal conditions fix the position of the globe and prevent exaggerated excursions, are here very loose and yielding. The treatment consisted in application of a bandage over night. As this, however, cannot effect a permanent cure, tarsorrhaphy will be indicated. (C. Zimmermann.)

Tuberculosis a Social Disease.—S. A. KNOPF, New York (*Journal A. M. A.*, June 16), takes up the social aspects of tuberculosis, the questions of its prevention by better social conditions and of its care and cure. He does not underrate the importance of hereditary predisposition in comparison with actual infection in infant tuberculosis. If we could prevent tuberculous marriages much could be done. He has seen no evidence whatever favoring the statement that tuberculous parents confer an immunity on the child, and believes that the practice of not nursing the infant also predisposes it to the disease. The importance of educating children to be good and not fastidious eaters is also emphasized. The dangers of infection in school from tuberculous schoolmates, and, possibly, but much more rarely, from tuberculous teachers aggravated by insanitary school conditions and overtaxing the child. There should be more out-door exercise. Gymnastics and swimming should be provided for in the public schools and out-of-door recitations and singing are also recommended. Many children are underfed and the providing of school lunches would be a worthy benevolence. While he believes that the association of tuberculous teachers and children is inadvisable he thinks that sometimes injustice is done, and he would multiply school sanitaria and employ the teachers there or pension the teachers off instead of punishing them for their misfortune by discharge. The baleful influence of child labor, even at the home in some conditions of poverty, are also noticed. The chances of acquiring tuberculosis from contact during early adult life or later may be reduced to a minimum by proper education of the subjects of the disease. The influence of the use of alcohol in spreading acquired tuberculosis is also most important, and Knopf thinks the best remedy for this is to make the sale of alcoholic drinks a strictly government-regulated affair and to put a check on the sale and use of alcoholic nostrums, which are even more dangerous as more deceiving. Next to alcohol, insanitary home conditions favor the spread of tuberculosis, and whatever will better the conditions of the poor will go a long way toward the reduction of its mortality. Lastly he speaks of the duty of the community to the indigent victim of the disease, the needed multiplication of sanatoria, etc., and expresses the opinion that the solution of the tuberculosis problem means also the solution of the greater social problem of the day.

NEWS ITEMS AND PERSONALS.

Drs. E. C. Schnittker and F. X. Schaefer, both of Milwaukee, have been held by the coroner's jury on a charge of having performed a criminal abortion upon a young woman, that ended in her death from peritonitis. Of Dr. Schnittker's record we know little, save that once before, in 1902, he was indicted on a similar charge, but was acquitted. Schaefer's record is well known. He is the possessor of diplomas from two fake medical schools, Rutland's "Wisconsin Eclectic Medical College", and the "Independent Medical College" of Chicago—both happily now out of existence. In an unsuccessful effort to compel the State Board to issue him a license, in addition to the certificate of registration previously obtained, Schaefer filed suit in 1900 presenting a certificate alleged to have been issued to him by the Dean of the University of Prague, stating that he had graduated from that University with merit in 1895, and that a diploma had been issued to him. Evidence was presented to prove this certificate a forgery. Suit was recently begun against him for revocation of his license on the ground that it was obtained by fraudulent representation.

The mumps by mail is one of the latest long distance feats accomplished by the elusive bacterium. A pastor at Racine, it is claimed, contracted mumps shortly after receiving a letter from a brother in Denmark who wrote that he was suffering from this disease. We were aware that ministers are given reduced transportation rates, but verily, it savors of "class legislation" to note that the courtesy of free transportation is accorded a pastor's guest.

State Veterinarian, Dr. E. D. Roberts, is continuing his crusade against tuberculous cattle, and has recently condemned several more herds, some of which were shipping their milk to Milwaukee and Racine. Dr. Bading, Milwaukee's Health Commissioner, is also attempting to safeguard the people from milk that comes from infected districts, and has the hearty co-operation of the State Veterinary Department.

A leper, for several months confined at the Soldiers' Home in Milwaukee, has at last been removed, and is to be taken to some colony. He contracted the disease in the Phillippines.

A municipal milk sterilizing plant for the treatment of all milk of doubtful purity that is distributed in Milwaukee, is one of the latest improvements contemplated.

Dr. John C. Yates, for some time located in Chicago, has returned to Milwaukee to engage in practice.

Mrs. W. H. Neilson, wife of Dr. W. H. Neilson, of Milwaukee, died on June 2nd, after a brief illness.

"THE 'PENDIX CURE OF THE OLD VOODOO."

(The following poem, written for the occasion by the wife of Dr. A. A. Maurer of La Crosse, was recited with charming effect by Lillian Smith, a bright little red-haired colored lassie, who enjoyed with the doctors the excursion on the Mississippi river during the last annual meeting of the State Medical Society of Wisconsin.)

I'se powerful glad to gib you greeting,
Fo I've often heerd de white folks tell
Dat when ebber you doctahs has a meeting
Sick folks has a fightin' chance to get well.

Dey say at dese meetin's you all takes pleasures,
In telling just how you cures disease
By gibbing 'em doses dats hard to measure
Or rippin up wid yous knife wif ease.

Dis makes me tink ob my own little trubble,
Oh Lawdy sakes, but I was sick.
I wuz bent as near as could be double,
And mammy she sent for a doctah quick.

Didn't seem more'n a minute befo he came,
A lookin' as solemn as Daddy's mule.
He nebber asked nothin' about my pain,
But stood dere just as calm and cool.

And he looked right at Mammy instead ob at me,
Den all ob a sudden he landed a punch,
De quickest ting dat you eber did see,
And it struck me just where I feels my lunch.

Ob cose I yelled, cause it surely hurt,
But de doctah he didn't mind it a bit,
Just stood dere smilin and says real curt,
"Her pendix is wrong, I'll get after it."

And den—well say—my har just riz,
I'd heerd befo ob dem knifin bees,
An I wasn't anxious to have "Poor Liz"
Writ on no tombstone neath de trees.

I just gabe a bound and out I went,
And I ran like mad trough the cool night air,
Till I butted right into de Voodoo's tent
Where de hants and de goblins weab many a snare.

I near turned white wid de awful skeer,
Fo I felt my hous was numbered sure.
So I flopped right down on my knees in fear,
Lak Brudda Smif when he visits de poor.

"Oh Lawdy dear, look down on dis chile,
An keep her out ob der doctahs hands,
And keep dose goblins and hants so vile,
From tying her up in dere Voodoo bands.

Oh Lawd, I know dat stealing a hen,
Or plugging a millyon aint de right life,
But gib one mo chance to yo sufferin friend,
And keep dat doctah from usin his knife."

Den I kep on prayin and shakin and yelpin
Tell de Voodoo woman near went mad,
And she said to me, "Deze chahms aint helpin,
When folks feelins is so bad."

"Fo even dese yarbs don't hab no power
Wid out de chile forgets her fright,
And watches me work in dis midnight hour,
Wid the Voodoo chahm dat will cure yo right."

So I sat right down by the fire dere,
Knowin for sure I was safe and sound,
And I watches her makin the chahms wid care,
Wid hants and goblins all around.

She took some har and a rabbits foot,
And rammed it down in de toe of a boot,
Den sed some words and wrapped it fine,
In a bit ob flannel as red as wine.

Den she sed, "drink dis." and she handed me
A steamin bowl of sassfras tea,
A dose of snake oil was de next I got,
And den she toted me cross de lot.

And tuck me all warm in bed,
And put dat chahm right neath my head,
And she says to Mammy real soft and low,
"Yo lamb am safe now, I kin go."

Next morning I woke up well and strong,
And happy, well, I was somefin gay,
For do, I punched myself good and long,
Dat pendix trubble was chahmed away.

Now dat was my case, and as you can see,
No doctah's knife got hold of me.
Jest report dis please, Mr. President, too,
As de pendix cure ob de old Voodoo.

MISCELLANY.

Pure alcohol can be made by modern processes from potatoes, or even sawdust, since any starchy or woody fiber can be converted into a form of sugar and fermented. Such spirit is worth in England about 12 cents a gallon, and it it this which constitutes from 50 to 75 per cent. of the liquid generally sold as brandy in Great Britain. In 1900 out of 4,744 sick persons treated in Parisian hospitals more than 2,500 were alcoholic, and out of every 100 consumptives 90 were alcoholic.

A Lubricant for Urethral Instruments. Strauss recommends the following: 1.5 parts of tragacanth are rubbed up with 50 parts of water, and 50 parts of glycerine are added. The mixture is then sterilized by heat and one-fifth of a part of oxycyanide of mercury is added. The mixture is thick, non-irritating, does not attack the instruments, and makes them very slippery.

(*Pharm. Zentralbl.*)

Germany's Enormous Drink Bill. According to published statistics each inhabitant of Germany consumed during the five years, 1900—1904 inclusive, an annual average of 6½ quarts of wine, 129½ quarts of beer, and 9 quarts of brandy. The per capita cost was $11.20, including children and women. The average for male citizens over 15 years would be $37.36. For a population of 60,000,000 persons the liquor expenditure figures out at $672,588,000.

Contrast these figures with other German expenses: For public schools the Empire spent, in 1904, the sum of $99,722,000; for working people's insurance, $104,244,000, and for the army and navy, $203,847,000. All these great public enterprises cost the German nation less than two-thirds of their alcoholic bill.

A trip to China and Japan. Alexander J. Stone of St. Paul is organizing a party of 100 for a rather fascinating trip. He offers transportation, including sleepers and dining car service to Seattle and return; hotel accommodations in Seattle; transportation on the 28,000 ton Steam Ship Minnesota to Japan and China and return; railway transportation and first class hotel accommodations in Japan, with Jinrickishas every day if desired; hotel accommodations and transportation in China all included for $700.00.

The party will leave St. Paul about July 21st; sail from Seattle July 25th, and reach St. Paul on its return about October 9th, making an expense of less than $10.00 per day.

Any who are interested may address Dr. Stone for further particulars.

Greek Law Regulating Practice and Prices. For opening a prescription drug store, or pharmacy, in Greece a permit is required from the board of health in Athens, which permit must be approved by the minister of the interior. For opening such pharmacy there must be a population of not less than 1,000 inhabitants. In towns of from 3,000 to 6,000 inhabitants two pharmacies are allowed; from 6,000 to 30,000 one pharmacy is allowed to each 1,000 inhabitants. Above 30,000 inhabitants, one additional pharmacy is allowed to each additional 6,000. In this population are reckoned villages and suburbs one hour's distance from the principal town.

In places where there is no doctor of good standing permits will not be

issued for the establishment of pharmacies.

Where only one drug store exists it must be located in the center of the town. Holders of permits must put them in force within six months after their issuance, otherwise permits will be withdrawn.

A druggist retiring from business can not again open a pharmacy in the same municipality.

The same proprietor is not allowed to conduct two drug stores.

Persons who deal in drugs, but who do not write prescriptions, must pass a "limited" examination showing a general knowledge of the nature and effects of various drugs. (U. S. Consular Report.)

Pharmacy in Argentine. Among the new laws regulating the practice of pharmacy in that country are the following: "The pharmacist shall in every case be personally responsible for the purity and legitimacy of the products that he dispenses or that he employs in making his preparations, of whatever origin they may be."

"Those who infringe this law and the regulation of the same that may be decreed shall be subject to a fine of one hundred to a thousand pesos, the closing of their establishment, and the suspension from and disqualification for the practice of their profession according to the gravity and circumstances of the case."

American Doctors in Japan. Deputy Consul-General John McLean, of Yokohama, in reply to inquiries from parties in this country touching the advisability of practicing physicians removing to Japan, writes:

No one is allowed to practice medicine in Japan unless he holds the Government license. Foreigners desirous of obtaining the license must be residents in Japan. Their application must be accompanied by either diplomas from respectable medical colleges or licenses from their own Government, together with applicant's personal history, etc. Upon receipt of such application the Government will investigate the character and standing of the applicant, as well as that of the college, or the nature of the license from foreign Government, and if found satisfactory, it will grant the license. Such investigation usually takes about six months. The natives here invariably prefer their own physicians, and the foreign community—less than 3,000 people—is amply provided with both American and European doctors. My advice is not to come to Japan unless you have some previous engagement. (U. S. Consular Reports.)

Dispensary for Consumptives. A free dispensary for the treatment of consumptives has been established in the mill district of Kensington, Philadelphia. No medicine will be given to the patients, but preventive measures will be started, and milk, eggs and light diets will be furnished free to those too poor to pay. After a thorough examination of the patients' condition, the treatment will be given at the home. Two nurses and the members of the staff will visit the sick and direct the treatment.

The Cleveland Press of Chicago, has announced what promises to be an excellent series of early forthcoming medical books, among them being one on "Organization, Construction and Management of Hospitals," by Albert J. Ochsner of Chicago, in conjunction with Meyer L. Sturm, an architect; "The Technique of Modern Operations for Hernia," by Alexander Hugh Ferguson; a "Guidebook on Everyday Surgery and Surgical Handicraft," by A. Hamilton Levings of Milwaukee; and a "Practical Dermatology" by Bernard Wolff, of Atlanta.

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ADDRESS.

THE ANNUAL ADDRESS OF THE PRESIDENT OF THE STATE MEDICAL SOCIETY OF WISCONSIN.*

BY JOHN R. CURRENS, M. D.

TWO RIVERS, WIS.

Once a year for sixty years, my worthy predecessors in this chair have addressed this Society on topics suitable for the occasion. In thinking of the past and realizing that the time has arrived that I, as retiring president of this Society, am to address you, I feel a pang of regret that I am unable, perhaps, to give you the oratorical flow of language, the depth of thought, and the encouragement and inspiration you have received on former occasions. In former years you have heard scientific addresses, and, from time to time, have been enlightened by the recent discoveries along the lines of abdominal surgery, new chemical combinations, the great work and advances made by Pasteur and others, of which we are now receiving untold benefits; the discovery of various germs and antitoxins have all been discussed in our meetings.

The most appropriate and suitable subject for this occasion, will, I think, be the history of our medical laws as they now stand, and I will detail some of the difficulties we had in getting them, throw out a few safe-guards to prevent you from being misled into anything that will hurt our present laws or prevent us from bettering them, and give you my reasons why I believe a doctor should be an active politician and take an active part in the framing and administration of our laws, local, state and national.

For more than thirty years the profession in this state attempted to pass a law governing the practice of medicine. The best men in

*Read before the 60th Annual Meeting of the State Medical Society, Milwaukee, June 27, 1906.

the profession and the best men among the laity of this state tried over and over again to have a bill carried through our legislature requiring that every man practicing in this state should show some degree of proficiency before being allowed to saddle himself upon an unsuspecting community as a reputable physician or surgeon. Men, learned in classics and loaded with knowledge of our laws, men who loved their families, loved their homes, and would, under ordinary circumstances, protect and help them in other ways, would, when it came before the legislature, turn us aside and vote against bills to regulate the practice of medicine. It was not done, probably, through any lack of respect for the medical profession in general, but it was, in many cases, done simply through sympathy for some one making a living who would be ousted if there were a strict law as to the requirements of reputable practitioners.

Probably the worst enemy through all these series of fights has been the public press, which has all these years been reaping rich harvests from the vultures and harpies that trail along in our rear ranks, buying printers' ink for the purpose of influencing and swindling the public in general. The first law that was passed in 1897 was a very crude affair and would hold no more law than a sieve would hold water, though by carefully working along, concealing its weaknesses and urging its strong points, the Board of Wisconsin State Medical Examiners managed to keep itself in existance as an organization from 1897 to 1899 with scarcely enough income to pay its hotel expenses and stationery. The law that was passed at that time applied to those commencing the practice of medicine in the State of Wisconsin, and I can assure you it was no small job to keep track of these fellows when none of the other physicians of the state were registered and we had no way of knowing where any of these new men belonged. However, our question blanks, if properly answered, covered nearly all points intended to show the qualifications of the applicant, but they were so direct that the irregulars feared to answer them, and many did not attempt it.

The legislature of 1899 came to our relief and passed the registration law requiring "every reputable resident physician and surgeon" who had been prior to and on the first day of July in actual practice of medicine or surgery in the State of Wisconsin, to apply to our board for registration and pay a fee of two dollars. This law put us on our feet and we took pains to print in red letters on the face of these certificates that they were not licenses to practice medicine or surgery, and yet many tried and are still trying to make them of the

same value. The intention was to show that these men were in practice before the law of 1897 took effect.

Two years later, at the next session of the legislature, we made our first step toward raising the standard of requirements for license in this state, and a bill was passed requiring all who contemplated locating in this state to pass an examination before this board, or to present a license from a state with equal requirements. We had a very hard fight with this bill because the osteopaths had entered the field a few weeks in advance of us and had the legislature pretty well coralled in favor of giving them a board of their own, allowing them to license osteopaths to practice in this state, and giving them the same rights and privileges that the regular physicians had. I am sorry to say that, with a comparatively small amount of lobbying, and without having explained to any one what osteopathy meant, they had succeeded in getting control of the Senate and had nearly obtained control of the Assembly too; but by hard, unwearying work we killed their bill, though we were compelled to put an osteopath on our board and in addition we had to license them to practice osteopathy without the use of drugs, medicines or surgical appliances, they being required, after certain periods, to raise their standard from two (2) to four (4) years and undergo the same examination that medical graduates did, excepting practice of medicine and surgery; and it was further provided that all schools that did not come up to this standard by the time specified, would be considered disreputable by our board and their students not eligible to admission in this state. After this law had passed, we found that there were several conflicting clauses in the different laws we had enacted, and after consulting with the legislative committee of the State Medical Society and the attorney general, it was decided that it would be better to codify our various laws into one; and so, at the session of 1903, we passed the bill which stands on our statute book (637A), which is practically the medical law of to-day.

After this law had passed, it was found that we had no power to revoke or to refuse to grant licenses or certificates of registration to persons guilty of immoral, dishonorable or unprofessional conduct, and so a measure with that provision, known as bill No. 353A, was introduced in the year 1905. This bill met with strong opposition from the press all over the state. Probably never before was there a time when the press in general of this state threw its whole energy against anything as against this "medical bill," as they called it. They spent thousands of dollars and employed the most talented legal

authorities that this state possessed, worked hand in hand with quacks and charlatans and men who were known to be disreputable, for the purpose of killing this bill, simply because they feared they would lose their revenue from the advertising of so-called "specialists." The people of the state came to our rescue, signed petitions, brought pressure to bear on their representatives in both houses, and did everything in their power to keep their less well-informed brothers from falling into the traps which were set by the press association.

Here I want to mention the fact that the Governor had considered our bill with our representative and had consented to its terms, and agreed, if it passed, to support it.

After carrying the bill through the Assembly, and having two votes in its favor to one against it in the Senate, we were notified that the Governor had changed his mind and would veto the bill—the same bill he had twice considered with a member of our committee; he now opposed the same points he had favored before (giving the board the power to revoke licenses) and favored substituting that action be brought in the Circuit Court instead, and one or two minor points; on the whole, our bill was very much weakened.

On another occasion, we being inexperienced, an "and" was changed to an "or" in the enrolling clerk's room, which would have made the holder of every registration certificate as reputable as a licensed practitioner, and this change was made under the very eyes of the man who introduced the bill, and he a physician too. I simply cite these as a few of the tricks the enemies of medical legislation use to carry their purposes.

The press club sent men into every county in the state to see physicians personally, telling them all kinds of stories, inducing them to sign dispatches to the Governor and legislators the day before the vote was taken, telling them they had a substitute bill which was better and had the endorsement of the Medical Board, and that the other was a fight made by Milwaukee physicians. We have wanted medical laws very badly, but I am thankful that the medical profession has never resorted to such means. It is cause for surprise that the head of the Wisconsin Press Association allowed his workers to prostitute his profession to help out—what? the press? no; the people? no;—it was done to assist a lot of medical prostitutes whom we have been fighting for years.

In 1902 we organized the American Confederation of Reciprocating State Medical Examiners' and Registration Boards, having the standard so nearly equal that by passing the examination and obtain-

ing a license in one state, one can obtain a license in another of these reciprocating states without submitting to another examination.

Five years ago, at the meeting of the National Confederation of State Medical Boards, held in St. Paul, Dr. Dale of our board read a very able paper on uniform standard and reciprocity, and was pounced upon by several of the delegates from the eastern and middle states, who declared that the millenium would come before such a thing would happen; a certain young member from the Michigan board took the floor and sided with Dr. Dale. Dr. Walker, one of the old and tried members of the Massachusetts board, made the remark that the western members were visionary and lacked judgment and experience, and he gave us to distinctly understand that he wanted none of our western quacks in the East, and that they would not submit to a change of their laws for a sentimental idea which was impossible of execution. After the gentleman had taken his seat, I felt it my duty to say something regarding the matter, and in reviewing the requirements of the Massachusetts laws and the Wisconsin laws, I showed him wherein his laws were much weaker than ours, in fact, they had scarcely any law at all, and it was doubtful if any good state would reciprocate with them; I told him that he might consider it visionary and all that, but that within five years half of the states in the Union would reciprocate. After my remarks, Dr. Coleman of Ohio, another of the faithful, old and tried medical examiners, took the floor and informed me that I was very much mistaken; that I lacked experience and was simply an optimist, and that it was not worth while discussing a matter so far out of the question. I answered that I hereby served notice on him that Michigan, Illinois and Indiana would surely meet within three months to organize an association, and urged him to send representatives from his state and invited the others present to join us at that meeting. That meeting was held and a primary organization formed with the states of Michigan, Indiana and Wisconsin. While there was some sentiment against us, the profession in general was so strongly in our favor that the different state boards and the profession began taking measures to patch up their laws. And to-day, I am pleased to say, Wisconsin reciprocates with twenty-one states. Under proposition No. 1 we reciprocate with Illinois, Wyoming, Texas, and North and South Dakota; under proposition No. 2 we reciprocate with Michigan, Indiana, Maryland, Kentucky, Nebraska, Iowa, Virginia, Kansas, Georgia, District of Columbia, Vermont, Ohio, Maine, Minnesota, South Carolina and Missouri.

Thus, you see, that the work has gone on and is still spreading, and you and I and everyone else will receive the benefit of this.

Now, my reason for alluding to this and giving the history of these matters, is to show you how necessary it is for the medical man to take part in politics on account of medical laws and the good of the people in general. Step in our legislative halls and you will find that the lawyers compose the largest percentage among the professions. It seems, perhaps, on first thought that this should be right; lawyers should make laws; from a legal stand-point and from a constitutional standpoint the theory is correct, but why, my dear friends, is the man who sits in his office and charges a widow for clipping the coupons from the bonds her dead husband had saved from his daily wages for the support of his orphan children, better qualified in making laws requiring the handling and bringing up of a child, than the physician who has known its mother, who has known its father, has shed tears with them in their trouble and carried them from death to life and gone with the father to his grave? Can there be any reason to think this lawyer whose pruning knife is reaching for the dollars, better qualified to legislate for the good of the people, than the honest, observing, broad-hearted physician, who, perhaps, has gone night after night, observed all the ins and outs and the little things, has even advised the widow how to manage her little store of worldly goods without a fee, and has advised her rightly? Should he be deemed less competent or less good a representative in the legislative body than the man who is looking for laws that require lawyers to explain them? Explanation means confusion, for scarcely ever will you find two who will give you the same explanation. It seems as though many of our laws are for the purpose of confusing the people, for when we have an original bill introduced by some young, straight-forward representative, possibly from a rural district, it is assailed in the committee room or on the floor on account of some pretended technicality, and a word is added which changes the whole meaning of the measure. My experience in the medical profession leads me to this conclusion: there is no class of men in a community, who, as a whole, are better read, more observing or better qualified to judge of the needs of the people than are physicians. And, I say, why not put them in our legislative halls, municipal, state and national? They would form a chain so strong that the world would realize that the medical profession is not what many would have it be. Why! to-day, a young man in our profession, entering as a surgeon in the U. S. Army and retiring at the proper age, would be retired with a

captain's commission, while a boy with a good pair of shoes and a clear head, carrying a surveyor's chain as an assistant, would probably be retired as a major.

Is this the respect that is due our profession, gentlemen? And who is to blame for it?—We ourselves, and none else, are to blame for it, and if we wish the people of our counties—if we wish the people of our state—if we wish the people of our nation to recognize us as the grandest profession in the world (which we are), we will have to make up our minds to send medical men to our legislative halls and through them let the people realize that we are a profession of good judgment and the wisest people in the world; if we are not, we should be, because our training and every-day work ought to make us such.

Let us give this matter more consideration, let us think of it when we go to our homes, talk the matter over with our medical brethren when we meet them, take it up and discuss it in our medical societies. Why should we not have an assemblyman who is a physician? Why should we not have a state senator, yea, why should we not have a governor?

Now, ladies and gentlemen, in retiring as president of the Society, allow me to thank you for the numerous acts of kindness and consideration which I have received at your hands. I assure you that they are to me a proof of your appreciation of the humble services I may have rendered the profession at various times. They will be cherished during the remainder of my life.

I must say that every effort of mine in striving to raise the standard of the profession in this state has at all times met with your support, and this support has lightened my burdens and lessened my anxiety, for I have realized that the substantial, intelligent, and reliable portion of the medical profession was with me.

I also express my thanks to the officers of this Society and the different committees that have done so much to make this meeting a success, and also thank all the physicians who in any way take part with us.

ORIGINAL ARTICLES.

HEMATURIA OF RENAL ORIGIN.*

BY H. M. CHRISTIAN, M. D.

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To accurately determine the source of the blood in many cases of hematuria is far from being an easy matter. Of course, in those cases of hematuria where the blood appears at the beginning of urination—initial hematuria—, or at the close of urination—terminal hematuria—, it is perfectly obvious that the source of the hemorrhage is in either the anterior or posterior urethra.

But the proposition is an entirely different and much more difficult one, where blood is passed intimately mingled with urine. Under these circumstances the problem as to whether the origin of the hemorrhage is in the bladder or kidney very often becomes a most difficult one to solve. However, a careful study of the clinical symptoms presented by each case, together with the information gained from an examination of the urine, and from the use of the cystoscope or some form of urine separator, will, as a rule, clear up most doubtful cases.

As regards the clinical features, those having the most bearing upon determining the source of the blood, are pain and urinary frequency. As a rule, hematuria associated with pain over the lumbar region, with or without urinary frequency, is of renal origin. On the other hand, where there is marked pain over the bladder, together with decided increased urinary frequency, one is justified in regarding the bladder as the probable source of the hemorrhage. The character of the bleeding and the macroscopic appearance of the urine are important factors in determining whether the bladder or kidney is involved.

Hemorrhage from the bladder is apt to be intermittent in character, suddenly appearing and as suddenly disappearing. The urine is blood red in color, and is apt to be alkaline in reaction; on the other hand, hemorrhage from the kidney imparts to the urine the well known "smoke color" appearance, the urine is generally acid and contains from time to time small worm-like clots of blood which are casts from the ureters. Upon irrigating the bladder I think the same inference can be drawn as regards blood in the urine as is

*Read before the Philadelphia County Medical Society, May 9, 1906.

done in the case of pus in the urine, *i. e.* in cases where this test is employed and it is noted that the blood rapidly disappears and rapidly reappears, it is fairly conclusive evidence that the blood comes from the kidneys. On the other hand where upon washing out the bladder it is noticed that the blood is slow to disappear and equally slow to reappear, the indications are fairly clear as to the bladder being the source of the hemorrhage. In recent years the introduction of the cystoscope, and the various forms of urine separators has done much to clear up what is often a most troublesome problem.

As regards the ingeniously contrived urine separators I cannot say that in my experience much accurate information has been gathered from their use. They all require the introduction into the bladder of large and rather unwieldy instruments, sufficient of themselves to provoke hemorrhage which may be very misleading to the operator.

Where a clear medium can be obtained in the bladder, ureter meatoscopy, as it is called by Fenwick, *i. e.* direct view of the urine as it spurts from the mouths of the ureters, gives us the most exact evidence as to the source of the blood provided it be of renal origin.

While deploring the fact that the introduction of instruments like the cystoscope has a distinct tendency to lessen our clinical research into cases of this character, one cannot help but express the gratification experienced upon seeing in a puzzling case the stream of bloody urine spurting from the mouth of one or other of the ureters, furnishing the most exact evidence as to the source of the blood, provided it be of renal origin.

Aside from cases of injury to the kidney, and chronic interstitial nephritis, hematuria of renal origin is due practically to one of three conditions,—calculus, tuberculosis and tumor. Of these three calculus is by far the most frequently encountered. The hematuria in each of these conditions possesses some special characteristics, which apart from the clinical features would aid in distinguishing the one from the other. For example, the hemorrhage of renal calculus is often associated with, or has been preceded by an attack of renal colic. It is as a rule attended with more or less constant pain over the affected kidney, radiating down the ureter, together with some increased urinary frequency. The hematuria and the pain diminish in a marked degree when the patient assumes the recumbent position. On the other hand, any unusual exertion on the part of the patient will be found to increase the bleeding to a considerable extent. The amount of blood passed is never very profuse; the blood is intimately mixed with the urine, which is apt to be of the color of beef tea or porter.

In this connection it must be borne in mind that there occasionally occurs a condition which Fenwick has described as "imbedded aseptic calculus," in which there is little or no pain, and no hematuria.

In tuberculosis of the kidney the hematuria is rarely profuse, in many cases being so scanty in amount as to require a microscopic examination of the urine for its detection. Morris states that in the exceptional cases where the hematuria has been severe, the tubercular process in the kidney has been found to be of the miliary type. The bleeding as a rule is intermittent in character, and, what is especially characteristic, is not affected by rest or exercise and is always accompanied by a moderate pyuria. The differential diagnosis between stone in the kidney and tuberculosis of that organ is in many cases a most difficult problem; as a rule, however, in tuberculosis of the kidney, the bladder, prostate or testicle is sooner or later involved. The finding of tubercle bacilli in the urine is of course most convincing, although I must confess to having been sadly disappointed many times in laboratory reports in cases that were manifestly affected with genito-urinary tuberculosis.

Regarding tumor of the kidney, Morris mentions hematuria as one of the earliest symptoms in 50 per cent. of cases. It is profuse in character, coming on without apparent cause and not necessarily accompanied with any pain. The hemorrhage has a distinct tendency to intermit; in many reported cases intervals of weeks and months have elapsed without the occurrence of any bleeding. The hematuria may be so severe in character as to constitute a most alarming feature of the case, at times threatening the life of the patient.

In benign or malignant growths of the kidney, in addition to the hematuria, there is in most cases a well defined tumor present by the time the physician's attention is called to the case. Owing to the anatomical relations of the kidney, such tumor should be sought for by an examination of the abdomen rather than the lumbar region.

As regards chronic interstitial nephritis, it may be said that the hematuria is very moderate in amount as a rule, intermittent in character, and to a certain extent amenable to internal treatment. Fenwick states, as a result of his extensive cystoscopic work in these cases, that the bleeding is usually from one kidney, and that he has never encountered a case where both kidneys were bleeding simultaneously.

One form of painless hematuria of renal origin is that known as "essential hematuria." In cases presenting this condition the hemorrhage is profuse even to the extent of endangering the life of

the patient, and, moreover, is not in any way influenced by rest or exercise, and is not attended with any known pathological lesions. Morris reports three fatal cases in two of which he did nephrotomy. The essential hematuria of tropical countries, due to the presence of the filaria or plasmodium micro-organism, is not included in this category. In any number of cases where nephectomy has been done for the relief of essential hematuria, the microscopic report has shown the kidney to be normal.

The etiology of this fortunately rather uncommon form of hematuria is simply a matter of academic speculation. Morris and German writers upon the subject are inclined to consider the condition as angio-neurotic in character. As illustrating the obscurity which involves this matter of essential hematuria it is only necessary to mention some of the titles under which it has been from time to time described. Senator, for example, calls it "renal hemophilia," Leguin, "hematuric neuralgia," Klemperer, "hematuria from a healthy kidney," while Rovsing is delightfully frank and styles it "mysterious hemorrhage." Fenwick, however, is not disposed to accept any of these ideas concerning the origin of essential or mysterious hematuria, but is inclined to the opinion that very many of them are in reality due to chronic granular changes in the substance of the kidney or to small angiomatous growths in the papilla.

In his work on ureter meatoscopy Fenwick divides hematuria of renal origin into two groups: Hematuria without pain, and Hematuria associated with pain.

In the first group he places:

Chronic interstitial nephritis (not uncommon).
Angioma of a renal papilla (rare).
Benign or malignant growths of the kidney.
Embedded aseptic calculus (rare).

In the second group is included:

Calculus of the kidney (common).
Tubercle of the kidney (not uncommon).
Chronic interstitial nephritis (rare).
Benign or malignant growths of the kidney (not uncommon).

TOXAEMIA OF PREGNANCY*.

ROBERT G. WASHBURN, M. D.

MILWAUKEE.

The causes of eclampsia and pernicious vomiting during pregnancy have long been a subject for much speculation and theorizing among the members of the medical profession, and to-day there seems to be no more unanimity of opinion than in the past. In fact, it would seem that each writer on the subject only adds to the already large number of theories, a new one of his own. The weight of authority at the present time is in favor of some toxic substance as the etiologic factor in morbid pregnancies. As to the origin and nature of this toxine, we have theories almost without number. Interest in this subject has recently been awakened by contributions from Williams, Strauss, Ewing, Stone and others. A review of the various theories which have been advanced seems appropriate at this time.

There is little doubt that eclampsia is due to the action of some toxic substance, and the tendency of the times is to assign a toxine as the cause of pernicious vomiting also. In fact one authority, Stone, has gone so far as to state that eclampsia and pernicious vomiting are one and the same disease. This, however, is a rather radical position to take in view of the many cases on record of hyperemesis gravidarum in which some cause other than a toxine appeared to be at work. The cases of pernicious vomiting may be divided for convenience into three groups: the reflex, the neurotic and the toxic.

Those cases in which the vomiting is due to some abnormality in the generative tract are said to be reflex. The abnormal condition causes irritation which acts reflexly upon the vomiting center. A great many abnormalities have been assigned as causes of reflex vomiting: uterine displacement, excessive distension of the uterus as in twin pregnancies and hydramnios, intermittent uterine contraction, endometritis, chronic cervical inflammation, rigid cervix, pelvic inflammation, ovarian tumors, corio-epithelioma, etc. It seems hardly likely that these conditions can play as important a part in the causation of vomiting as some have claimed. Most of them occur in the nonpregnant state without causing vomiting. There are many cases of pregnancy in which marked genital abnormalities exist without vomiting, and it is more than likely that most of these conditions are merely accidental concomitants. The fact, however, that many cases are on record in which the vomiting ceased promptly after the

*Read at the Milwaukee Medical Society, May 22, 1906.

correction of a displacement of the uterus, the dilatation of a rigid cervix or the removal of some other abnormality, justifies us in assuming that these conditions may occasionally have a causal relation to pernicious vomiting.

The neurotic theory finds its strongest advocate in Kaltenbach. He considers that at least a small percentage of the cases is closely allied to hysteria, and bases his belief on the fact that some cases yield to treatment by rest and suggestion. That a large number of women show a decided change in temperament during pregnancy cannot be denied. But of those who are subject to vomiting, the nervousness is as likely to be the effect as the cause of the trouble. Although certain cases lend weight to Kaltenbach's theory, still it cannot be said to be firmly established on a scientific basis.

The toxic theory has the largest number of enthusiastic advocates, and it is to this theory that I wish especially to call attention. The origin and nature of the toxine are still matters of conjecture, and many ingenious theories have been advanced. The source of the toxine may be either maternal or foetal. Of the maternal sources the intestine, the ovary and the liver have been suggested.

Dirmoser is the chief advocate of the theory of intestinal origin. His theory is based on the finding in the urine of indoxyl, skatoxyl, aromatic sulphates, phenols, nucleoalbumins, increased uric acid, and frequently acetone, diacetic acid, peptone and urobilin. From these findings he concludes that toxic substances are derived from carbohydrates in the stomach and proteids in the intestine, and, gaining access to the blood, cause vomiting. This theory is further substantiated by the improvement and cure in a series of cases treated by the use of intestinal irrigation and intestinal antiseptics. In a recent article he has published results of animal experimentation showing the intestinal contents of these cases to be highly toxic.

Several authors have assigned the ovary as the source of the toxine, one claiming that there is an obnormal ovarian secretion (Pierrehughes), another that the ovarian secretion is suppressed (Turenne), and a third that there is an abnormal secretion from the corpus luteum. These theories are largely speculative and have no scientific foundation.

Still others have claimed the liver to be the source of the toxine, basing their theory on the hepatic lesions and urinary changes found in fatal cases of vomiting and eclampsia.

It is stated by some—especially by Ewing and Stone—that the two conditions are identical and that the condition found at autopsy is that of acute yellow atrophy of the liver. This position is also taken

by Strauss in a recent article on the subject in which he reports three fatal cases. Williams, however, is unable to agree with these authors. He contends that the condition of the liver found at autopsy is not identical in the three diseases. In eclampsia he finds that the necrosis invades the liver lobule from the periphery, while in pernicious vomiting and acute yellow atrophy the necrosis is central and never involves the portal spaces. He also claims to sharply differentiate eclampsia from pernicious vomiting by the chemical examination of the urine.

In eclampsia he finds the urine scanty and in the majority of cases it contains albumin. The total nitrogen is diminished while the percentage of ammonia remains normal. In pernicious vomiting of the toxic variety, on the other hand, the quantity of urine is normal except in so far as it varies through loss of fluid. Albumin is absent until the terminal stage. The total nitrogen remains normal but the percentage of ammonia is high. Williams places so much faith in the high percentage of ammonia in these cases that he considers the induction of abortion justifiable when the ammonia coefficient rises much above 10 per cent. The difficulty, however, in making any practical use of the ammonia coefficient arises in the method of its calculation. This requires 48 hours' time and consequently can be of little use in an emergency. Williams thinks that we have to deal with two varieties of intoxication and that the differences in the symptoms are due to the selective action of the toxin—one resulting in pernicious vomiting and acute yellow atrophy of the liver—the other giving rise to eclamptic convulsions.

Those who attack Williams' position do so principally from his positive statements as to the location of the necrosis in the liver in the two conditions and from his contention with regard to the ammonia coefficient. Stone claims that in both pernicious vomiting and eclampsia the liver lesions may be either central or peripheral and denies any uniformity. Strauss in his three cases finds the necrosis in the middle zone primarily, and spreading from this position either peripherally or centrally.

Among these cases we must include those of acid intoxication. This group is little understood and in most of the recent articles receives only a passing comment. Stone considers the presence of diacetic acid and beta-oxybutyric acid in the urine of importance, probably indicative of a serious condition but not representing a fundamental factor.

The presence of diacetic acid and acetone in the urine in these cases is difficult of explanation. From the fact that these substances

are so constantly present in the urine of cases of delayed chloroform poisoning and phosphorus poisoning, we might infer that the liver lesions lie at the bottom of the condition. Fatty degeneration and atrophy of the liver are found in all these conditions. The acids may arise from disintegration of the fat as suggested by Guthrie. Another theory that has been suggested is that, as a result of injury to the cells of the liver, they are unable to perform their functions properly, and we have resulting a hepatotoxaemia in consequence of the accumulation of the poisonous products of incomplete metabolism. These products appear in the urine as diacetic acid, acetone and beta-oxybutyric acid.

A recent article by C. G. L. Wolf of Cornell University Medical School, if we may credit his results, would seem to show that the presence of diacetic acid, betaoxybutyric acid and acetone in the urine in cases of pernicious vomiting of pregnancy, is practically of no significance so far as etiology is concerned. In a series of experiments on normal subjects he found that in those of a fatty habit, starvation produced changes in the urine identical with those found in hyperemesis of pregnancy. There was a marked production of diacetic acid, acetone and betaoxybutyric acid and an increase in the percentage of ammonia nitrogen up to as high as 39 per cent. In normal individuals, on the other hand, in whom the body fat was practically lacking, he got entirely different results during starvation. The abnormal acids were absent while the ammonia coefficient remained normal. He thinks that the source of the acids in starvation, then, is the body fats, and that the ammonia coefficient is high as a consequence of an attempt on the part of the blood to neutralize the excess of acid. Where the body fat is lacking the acids are not produced and the ammonia coefficient remains low.

As a result of these experiments, Wolf concludes that the cause of the appearance of fatty acids and a high ammonia coefficient in the urine in cases of toxaemia of pregnancy is simply inanition, and that, if the patient is not possessed of an abundance of body fat, the acids are not produced and the ammonia remains normal.

From these facts it would seem that in the cases in which Williams found a high ammonia coefficient he was dealing with subjects of a fatty habit, while those which showed a normal amount of ammonia and which Williams classes as reflex and neurotic were simply lean individuals with not enough fat to produce the acids. If this is true, Williams' use of the high ammonia coefficient as an indication for interference with the pregnancy seems to be fallacious. That the ammonia coefficient is not always high in cases of toxic vomiting

is evident from the many cases now on record showing a contrary condition.

We find no greater unanimity of opinion among those who claim the foetus as a source of the toxine. Some consider the toxine to be a product of foetal metabolism, poured into the maternal blood in such quantities that it cannot be eliminated rapidly enough to prevent intoxication.

Against the foetal origin of the toxine we have the cases of eclampsia occurring after delivery. Hitschman has reported a case of eclampsia with hydatid mole. This also seems to prove that the toxine is not necessarily foetal in its origin.

Perhaps the most popular theory at present is that the toxaemia of pregnancy is due to a cytotoxin. This theory has been promulgated most widely by German authors—notably Veit and Weichardt. This theory is based on the fact that syncytial elements are found in the circulating blood of the pregnant woman. Taking this as a basis and arguing along the line of Ehrlich's side chain theory, three distinct theories as to the syncytial origin of the toxine have been evolved.

The first of these theories, suggested by Veit, is that the toxine is contained in the placental elements themselves and that the symptoms are caused by an excessive influx of these elements into the maternal circulation. Animal experimentation has, however, failed to substantiate these claims.

The second theory was suggested by Ascoli. He says that when these placental cells are discharged into the blood, a lysine is formed by the maternal blood for their destruction. He thinks the symptoms are due to an over production of this cytolysine or syncytio-lysine, in other words an over compensation. Ascoli succeeded in producing a serum which was highly syncytiolytic and caused convulsions in animals by injecting it under the dura. But it had no effect when injected directly into the blood. Hence his experiments seem to prove nothing.

The latest theory is that of Weichardt. He thinks that when the placental elements gain access to the maternal circulation a lycine acts upon them and thus sets free a toxine. And if there is not sufficient antitoxine in the blood to neutralize this, symptoms of toxaemia are the result. Animal experimentation along the line of Weichardt's theory has, however, yielded such conflicting results that we cannot accept the theory until more has been done to give it a firmer foundation.

It is evident, from this brief review, that we cannot accept any of the theories as to the etiology of eclampsia and pernicious vomiting. The question is an important one and presents an inviting field for further investigation.

The prognosis in eclampsia is always grave and there is little difference of opinion as to the proper treatment—the emptying of the uterus promptly. In pernicious vomiting on the other hand we have to take into consideration the question of whether the vomiting may not be neurotic or due to some reflex irritation. In this group of cases the prognosis is favorable. In the toxic cases, however, we have to deal with a very serious condition. Williams goes so far as to say that death is universal if the toxaemia is pronounced and the pregnancy left uninterrupted. Statistics seem to show that the chances for recovery are better where abortion is induced. Out of 118 cases collected by Gueniot the mortality was 90.2 per cent. without abortion, 52.3 per cent. where abortion was induced. In 239 cases collected by Hirst, 25 per cent. died after the induction of abortion, while the mortality was 49.1 per cent. in the cases treated without abortion.

The main purpose of this paper is to report a case which recently came under my observation.

The patient is a young woman aged 21 who has been married about a year and a half. She states that she was always delicate as a child but never had any attacks of nausea and vomiting during her childhood. She has always had a great craving for sour articles of food. Her menses have always been regular. In April 1905 she had her first attack of vomiting. This came on without apparent cause, lasted about three days and stopped as suddenly as it began. In July of the same year she had a similar attack which began suddenly in the night after attending a picnic at which she had indulged freely in pickles and other picnic delicacies. There was no suspicion of pregnancy at this time. The vomiting persisted and she was obliged to remain in bed a month. She was able, however, to retain broths and soft boiled eggs. No data as to the treatment employed or the condition of the urine at this time was obtainable. Since then she has been well until the present illness.

The date of her last menstrual period was Dec. 15, 1905. She began to have morning nausea about Jan. 23. This nausea increased until Jan. 26, when she began to vomit. She was first seen Jan. 26, and a specimen of her urine was obtained. She was given cerium oxalate. The urine was found to contain both diacetic acid and acetone. The cerium oxalate had no apparent effect. The vomiting

continued, growing steadily worse. On Jan. 28 sodium bicarbonate in doses of 60 grains every 2 hours was given with the idea of counteracting what was believed to be an acid intoxication. This seemed to have the desired effect for she gradually improved, was able to eat heartily, and did not vomit at all from Jan. 30 to Feb. 3. This day she vomited her breakfast, but had no nausea and felt quite well. The bicarbonate was continued after the first administration in doses of 15 gr. thrice daily.

Her condition remained satisfactory until Feb. 12, and during this period she vomited not oftener than once a day, was able to eat heartily and felt well. The urine on Feb. 11 contained neither acetone nor diacetic acid.

On Feb. 13 she had several vomiting spells and the dose of the bicarbonate was again increased. Now, however, it had no effect. On Feb. 15 she was removed to the St. Joseph's Hospital. The urine again showed diacetic acid and acetone. Leucin and tyrosin were looked for but not found. The amount of urine was reduced somewhat—averaging about 900 cc. per day. The specific gravity was constantly high, about 1030. The urea was normal. The ammonia coefficient was not increased. Her condition kept getting rapidly worse after her admission to the hospital. Nothing was retained and nausea was constant. She was sleepless and was losing flesh rapidly. On Feb. 18 it was deemed advisable to terminate the pregnancy. The operation was followed by profound collapse from which the patient was roused only by the most vigorous use of stimulants and hypodermoclysis.

There was no return of the vomiting after the operation and the patient made an uneventful recovery. Diacetic acid persisted a few days. It was last noted on Feb. 23, five days after the operation. The acetone persisted in traces until she left the hospital on Feb. 28.

In some respects this case is unusual, especially so far as the urinary findings are concerned. In the cases reported by Wolf and Williams where diacetic acid and acetone were present, they were always accompanied by a high ammonia coefficient. In the case I have reported there was no increase in the ammonia. This condition was also found in a case recently recorded by Baldwin. This tends to throw some doubt on the theory that the high ammonia percentage is due to an attempt on the part of the blood to neutralize the acids.

Another point which I think tends to throw doubt on Wolf's theory that the presence of diacetic acid and acetone in the urine is

simply a sign of inanition—is the fact that these substances were present at the beginning of the attack before starvation could account for them.

POISONING BY COAL GAS.*

BY JULIUS NOER, M. D.

STOUGHTON, WIS.

The clinical symptoms of the milder forms of coal gas poisoning and their treatment with fresh air and mild stimulation are sufficiently familiar. In the severe forms the clinical and pathological features are entirely different in character and effects and require the most prompt and energetic treatment. The poison is in practically all cases a combination of carbon monoxide and carbon dioxide—the former being a most deadly poison, though absolutely imperceptible to the senses. Carbon monoxide gas is a poison causing rapid decomposition of the blood by its affinity for the hemoglobin, and this is so strong that it destroys the oxygen-carrying function of the red corpuscle and chemically combines with the hemoglobin, thus destroying its function. Its effects are rapidly fatal, hence few cases are on record where the symptoms were due wholly to the carbon monoxide gas.

Of the cases herewith reported No. 5 is of more than passing interest, because the poisoning was certainly wholly due to carbon monoxide gas.

On October 7, 1901, I was called out at about midnight to a farm four miles out of town. The house was large and occupied by two families, who lived in entirely separate apartments. The elderly people, a man about 60 and his wife 54, and two grandchildren, aged 8 and 10 years, occupied two rooms on the first floor and two on the second—the old people sleeping downstairs, the children upstairs. The rooms downstairs were connected by an open door, and a register connected the upper with the lower floor. They were all heated by a coal stove on the first floor. This stove had been put into use the day before and on going to bed at night the damper in the pipe had been shut.

About 11 P. M. Mrs P. was awakened by an explosion which

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blew open all the stove doors, and warned the sleepers of their danger before fatal stupor occurred. Mrs. P. got up though she had a very severe headache, and was so dizzy that she could only stagger about the room. She found the door, however, and called for help. On my arrival all were in bed, doors all open and house freely aired. Children who slept in room immediately above coal stove were apparently none the worse from the effects of the coal gas. They complained, however, of headache, nausea and dizziness. They had vomited during the night and had been up and had wandered about the room, one having fallen asleep on the floor. Mrs. P. was not drowsy, but, on the contrary, very irritable, complained of pain in limbs, was very much nauseated, had intense headache and dysuria, countenance pale and anxious, and lips bluish, pulse 120-130, small, thready, low tension, but regular. Temperature slightly sub-normal, respiration 27 to 31. Urine was found upon examination to contain nothing abnormal except an abundance of red blood cells and blood coloring matter.

Mr. P. was simply very drowsy and dull mentally, with feeble pulse, headache and nausea. Very stupid and somnolent, otherwise nothing abnormal. The treatment pursued was simply abundance of air and rest in bed. The children recovered entirely within 24 hours. Mrs P.'s hematuria lasted 3 or 4 days, when it ceased and the urine became normal. The headache, nausea and dizziness continued for about two weeks, and she remained pale and feeble for a much longer period. It is evident that the coal gas does not affect all alike, although, as in this instance, all may receive practically the same dose.

Case V. M. G., aged about 40. This was an interesting and instructive case. On December 18, 1901, at about 2 P. M., I was called from my office to the Stoughton Morgan Co.'s foundry with the statement that a man had fallen into cupola. A cupola is a tall chimney —4 to 6 feet inside diameter and 15 to 20 feet in height—into which are piled alternate layers of coke and pig iron. A fire with a very powerful blast draft is started below and intense heat developed with abundant formation of carbon monoxide gas, which for technical reasons is desirable in the melting of the pig iron. M. G. was helping to load the cupola with pig iron and coke. Just after the fire had been started below and after dumping in the last load of iron through the door near the top, M. G. stepped into the cupola to adjust a piece of the pig iron. He was at once overcome by the gas, and although the workmen who were with him at once grabbed him, and pulled him out upon the platform, he was apparently lifeless. I arrived on the scene practically at once. A hypodermic of 1-50 grain nitroglycerin with which I had loaded my hypodermic syringe before leaving the

office, was at once injected, and artificial respiration was started and kept up till breathing was fairly well re-established. The general condition on arrival was as follows: external appearance—skin a reddish purple color, eyes half open with pupils dilated, not responsive to light, conjunctiva insensitive, mouth partly open, general muscular relaxation. Pulse was at first imperceptible, then very feeble and irregular, low tension. Respiration apparently non-existent except as kept up artificially for about half an hour when breathing began slowly with long inspiration and short expiration which gradually improved as time passed and stimulants were injected. The nitroglycerin was followed by a 1-25 grain atropin hypodermic. Another 1-50 grain nitroglycerin and 1-50 grain digitalin were given. Digitalin and strychnin (1-50 grain) were continued every half hour alternately for some 4 or 5 hours. As soon as respiration and pulse improved, the man was moved to the company's office rooms where a physician and several attendants remained in charge of the patient till about midnight, when he was able to walk to his home—a distance of about half a mile. The general insensibility and drowsiness continued some 2 to 2½ hours, when a period of excitement with purposeless movements supervened. My colleague, Dr. Omsted, who was present, at this period, suggested that the clinical picture was like that of early delirium tremens. With a face the picture of emotional excitement the patient would suddenly get up and run about the room with rapid movements of arms, hands, etc., and with the general appearance of great delirious excitement. This excited condition continued for some 4 or 5 hours when he gradually quieted down and the general conditions improved. Pulse during all this time was very rapid, pupils dilated, surface of body bathed in perspiration, skin of a bright reddish color, lips and ears somewhat purplish, temperature at first subnormal (97°) later 101°. Temperature became normal the next day. Shortly before midnight the patient appeared sufficiently quiet to be taken to his home about one-half mile distant. Up to this time he did not talk nor did he respond to any questions asked him. When he got home he was put to bed and soon went to sleep, resting quietly till next morning. When seen the next day he responded to questions and stated that he felt very well, but the mental processes seemed very slow and somewhat difficult. Urine was blood colored and contained hematin, but no blood cells. This condition persisted for a number of days and then gradually disappeared. The countenance was somewhat stupid and eyes staring, pupils reacted normally to light. Skin still decidedly red and lips of bluish tint. Pulse 100, small and compressible, respiration and

temperature normal. He had no recollection of anything that had happened since he stepped into the cupola at about 2 P. M. the day before. He was for some time weak and anemic but returned to work in about three weeks after the accident.

It may be of some interest to briefly review the symptoms, the pathology and treatment of coal gas poisoning, which may be chronic in badly ventilated rooms, or may be acute and the serious symptoms due in the main to the deadly carbon monoxide which is absolutely odorless and imperceptible to the senses. In mild cases we have headache, nausea, general muscular weakness, somnolence or in some instances irritability and nervous instability. I am inclined to think that in nearly all cases there is a period of excitement and irritability preceding the somnolence or stupor. When the dose is large or the exposure to gas inhalation long, the patient becomes unconscious, the face is flushed, lips and ears are blue or purple, pulse and respiration accelerated, while in very severe cases respiration may become very slow. Congestion of the lungs is a frequent concomitant; there may be congestive spots in the skin. The temperature is at first low and later rises, especially if lung complications supervene. The kidneys are congested, albuminuria usually absent or slight, with or without casts, often blood and usually urates and oxalates. Constipation with coated tongue is the rule as case progresses. Free perspiration is the rule with a red or reddish purple skin; lips and ears are very apt to have a purplish hue. There is general soreness of the body with muscular pain and tenderness, the desire to be let alone is probably due to the muscular soreness. It must not be forgotten that in all cases where there has been exposure to carbon monoxide the symptoms are serious and the after effects are severe prostration and blood disorganization. I am confident that a great many cases of headache, dizziness, nausea and anemia with prostration, especially in women who remain much indoors in winter in badly ventilated rooms heated by the hot air furnace or coal stove, are very often due to the inhalation of small quantities of carbon monoxide gas gradually escaping from leaking furnace, stove or gas pipe.

The treatment in mild cases is fresh air, with digitalis and strychnia to sustain the heart and to counteract the lowered blood pressure. In severe cases it would seem reasonable to employ oxygen by inhalation and use the most powerful stimulants, respiratory and circulatory. Venesection would seem a reasonable measure in severe cases where the venous system is overfilled with deoxygenated blood. Complications which supervene must be combated with the appropriate therapeutic remedies. As anemia must follow the blood de-

composition, iron and tonics are the remedies for the stage of convalescence.

The Surgical Treatment of Puerperal Pyemia. In his introductory address on surgery before the Section on Surgery and Anatomy of the American Medical Association, Professor TRENDELENBURG, Leipzig, Germany, (*Journal A. M. A.*, July 14), treats especially of the surgical treatment of puerperal pyemia. He points out that at the present time we ordinarily have only to deal with pyemia as it occurs from aural or uterine infection. The surgical treatment of otitic pyemia by clearing out of the thrombosed transverse sinus, with or without ligature of the jugular vein, is well established, the only differences of opinion being confined to details. He asks why this same plan of surgical procedure can not be followed in puerperal pyemia with like good results. He points out the pathologic similarities between the conditions and questions the statistics that have been used or that may be used against the employment of surgical measures for the relief of this condition. Even with a mortality of only 50 per cent. under non-surgical treatment it is one of the most serious and fatal maladies to which women are subject. The as yet limited number of successful cases of ligature of the pelvic veins for this condition indicates that we are on the right track and he believes that the surgical treatment of puerperal pyemia will follow the same road to professional favor as has that of otitic pyemia. The prognosis can only be favorable in acute cases with early operation, as the thrombotic process rapidly extends upward, even to the vena cava, while in the chronic cases its advance may be restricted to the internal iliac and ovarian veins after a lapse of several weeks. Although a sufficient collateral circulation may be established even after obliteration of the vena cava, he would not advocate this procedure. He does advise, however, ligation of the internal iliac and ovarian veins at an early period in acute puerperal pyemia in order to prevent the extension upward of the thrombosis. In cases of doubtful diagnosis an explanatory exposure of these veins is in his opinion as justifiable as in cases of abdominal injury or in gastric cancer. The danger of such an operation is not to be considered in comparison with the greater one that threatens the patient's life from the disease. The relative merits of the transperitoneal and the extraperitoneal routes for the operation are discussed. The former is perhaps the simpler, but it involves the danger of peritoneal infection by the septic material from the veins when the latter are opened accidentally or otherwise, and they can not be cleaned out thoroughly for this reason. The extraperitoneal operation calls for a much larger incision if the veins are followed up to their full extent, and is perhaps also more difficult and tedious. The danger to the peritoneum, however, is lessened, and the veins can be opened and cleared out. Experience has not shown the invariable necessity of the latter procedure as practiced by otologists on the sinus; the exclusion of the thrombus from the circulation, by ligation, preventing the contamination of the venous blood often seems all sufficient for the purpose. The incision is made as for ligation of the iliac artery, above Poupart's ligament, and then upward to the tip of the eleventh rib. It may be possible to utilize both methods with advantage; experience must decide.

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EDITORIAL COMMENT.

THE 60th ANNUAL MEETING.

By unanimous consent, the recent annual meeting of the State Society has been adjudged an unquestioned success—the equal of any that has been held by the Association. There were many features that contributed to this success, foremost among which is to be mentioned an attendance but little short of 400. The complimentary smoker given by the Milwaukee Medical Society on the first evening, served well to renew old and make new acquaintances, and thus was ushered in a meeting conspicuous for its display of good fellowship. The boat ride to Whitefish Bay was thoroughly enjoyed by a very large number of out-of-town guests and their Milwaukee hosts, but the difficulty experienced in obtaining comforts for the inner man at the Bay Resort, marred somewhat the pleasure of the evening.

The Annual Addresses in Medicine and Surgery by Drs. J. H. Musser and A. J. Ochsner respectively, were unquestionably features of great attracton, and the scientific program by members of the

society was adequate both as to the number of papers and their selection, to satisfy the most exacting. If fault is to be found it is with the abundance of the material presented. This is regretable because it became necessary to enforce the rule as to time limit placed upon papers and discussions, and thus much was lost that might have served to elucidate the texts of the writers.

Mention must be made of the pathologic exhibit, which was of surpassing merit, excelling any previous effort in this respect.

The House of Delegates was an exceedingly active body, and accomplished much and satisfactory work. Its report is printed in abstract in this issue of the JOURNAL.

Dr. Pelton's selection as president for the coming year, met with cordial response by the Society. He well deserved the honor forced upon him. The wisdom of the selection of West Superior for the next meeting, is a question admitting of some debate, because of its great distance from the center of population of the state. There are reasons, however, that seem to favor this selection, and there are under consideration certain plans which, if carried out, will commend the selection of this city highly.

Though passing some criticism upon certain features of the meeting, it must be understood that these were but minor points. The Society may be proud of the record for attendance and of the excellence of the scientific program.

The Society has increased its membership during the past year. and is now in a most flourishing condition. Harmony reigns, and the State Society will as a body now begin to rank as a controlling force in everything that pertains to our science in this state.

REFORM LEGISLATION.

The fierce struggle between our country's law-makers and its law-breakers is now a closed chapter—to be continued, possibly, at the next legislative session. The result of recent onslaught upon the moneyed interests that have so long dominated in our legislative halls, is one of which everyone may be proud. Sensational journalism may be credited with much that has been accomplished, and, call it yellow journalism, if you will, there is not an honest man who is not truly thankful for the achievement. With individual interests ready to take up the cudgel in the fight for what is decent and right, with magazines that can sway public opinion in favor of recognizably honest contentions, with an overwhelming sentiment of the public against imposition, fraud and bare-faced deception, with the support

of a president who is honest, fearless, full of conviction and insistent, and, wonderful to relate, with a legislature that has become convinced that interested bias must give way to public opinion, it is a fact worth recording that witnesses the conscienceless capitalistic interests on their knees before a beckoning not a begging public.

We do not deceive ourselves with the thought that these defiers of the laws of humanity are "down and out," but they are on the defensive, and actively so, and that is equally gratifying.

A pure food law has at last been passed. It may not be one whose strict interpretation will not admit of countless though legalized abuses, but it is a law to be reckoned with and upon which future corrective legislation can be successfully super-added. It is easier to amend than to enact anew. The bill as passed does not please the manufacturers, and, although they had to bow to the inevitable, the particular measures which they tenaciously but unsuccessfully resisted may, after a period of hibernation, again emerge with even greater force at a future session. The present day spirit of lawlessness indicates that this forecast is warranted, but public opinion has been roused, and will not be easily downed.

The meat inspection bill is a boon to the people of this country; foreign lands have already been sufficiently protected, but only because they made a demand for such protection. Our pure food laws will play havoc with poor and unwholesome foods and adulterated goods. Poison-containing patent and proprietary medicines must announce the nature of their contents. The enactment of this provision alone is a proud feather in the caps of the earnest advocates of honest reform.

We take off our hats to the editors and proprietors of *Collier's Weekly* and the *Ladies' Home Journal,* for it is they primarily who have done this noble work and have done it well; they deserve every commendation an honest body of professional men can give.

They may have erred at times in their strictures of men and things (and we think they have) but this is of little significance when we take a broad view of the pioneer work done, and the obstacles that were encountered in its accomplishment.

STATE LEAGUE AGAINST TUBERCULOSIS.

The movement to inaugurate a State League for the Suppression of Tuberculosis, begun in Milwaukee as a result of the recent exhibition, was given the endorsement of the State Medical Society at its recent meeting, and a committee of five, consisting of Drs. C. A. Harper of Madison, J. M. Beffel, J. W. Coon, G. E. Seaman and

C. H. Stoddard of Milwaukee, was appointed to aid in the organization. In addition to this committee it was decided that the state could best be reached in disseminating propaganda through the aid of physicians appointed in each of the councilor districts, each to be responsible for the work in his district.

The league is to be modelled upon similar organizations now working in a number of states, and, while fostered and encouraged by the medical profession, is to be essentially a lay body, seeking to educate the component communities in all that pertains to the eradication of tubercular diseases. For instance, such bodies of widespread influence as the Consumers' League and the Federated Trades will, each in its own province, and each as interested as is the medical profession, seek to enact laws and to regulate manufactures in such ways as shall better the condition of factory employees. These bodies will, therefore, be equally represented in the league, and when once launched much of the work of the medical members will be of an advisory nature only.

The league will attempt to assemble an exhibit similar to the exhibit of the American Association, for use throughout the state, and will also maintain a lecture bureau and publish and furnish such literature as shall assist different cities in educating the people. The medical profession has pointed the way, and an intelligent public must do the work of stamping out this captain of the men of death.

It is hoped that all members of the State Society will lend their enthusiastic support in this movement and keep Wisconsin well to the front in the anti-tuberculosis crusade.

MEDICAL COLLEGE NOTES.

Important changes in the medical schools of Milwaukee have recently taken place and others are in contemplation.

According to current reports, which, so far as we know, have not yet been authoritatively substantiated, the Milwaukee Medical College is contemplating a union with the Marquette College, a most excellent local catholic institution. Such an affiliation will unquestionably add greatly to the institution's prestige. It is stated that there is a plan afoot to organize a University of Milwaukee, whose classical and theological departments will be represented by the Marquette College, and medical department by the Milwaukee Medical College, other departments, such as of law etc., to be affiliated later.

The affairs of the Wisconsin College of Physicians and Surgeons are in the future to be directed by a board of trustees selected from among Milwaukee's prominent merchants and capitalists in con-

junction with three members of the faculty. In order to effect this, it was necessary that all stockholders turn over their stock and all privileges therewith connected, without compensation, to the new board of trustees, and we are informed that all have magnanimously responded. It is certainly a laudable motive to abrogate proprietorship in didactic and clinical chairs and to make them wholly independent of outside influences.

IMPRESSIONS OF THE TUBERCULOSIS EXHIBIT.

The school children of Milwaukee were invited to view the Tuberculosis Exhibit recently held in this city. This they did in large numbers accompanied by their teachers. In order to test their powers of observation they were asked to describe some picture or scene among the exhibits which had particularly impressed them. The two following specimens that were submitted to a teacher demonstrate how deeply impressed they must have been by what they saw:

DESCRIPTION OF A PICTURE.

In the rear part of the room on the northern wall, is a picture with many beds and patients therein. This picture is like a rectangle in shape with a dark frame and the picture itself light.

The central part of the picture which is one of the rooms of a tuberculosis sanitarium, are patients ready for the doctor's treatments, and nurses ready for any help whatever. The foreground is unoccupied with a few visitors on the side who are going to watch the performance which is to take place. In the background are doors and windows all spread open for the fresh air to go in and foul air to pass out. Also a few patients are sitting on reclining chairs by the open doors which are on the way of recovery.

The picture shows a good many things, that fresh air and good food is very luxurious to patients. It shows not only the rooms of a sanitarium of tuberculosis but also a ward in one of our hospitals.

DESCRIPTION OF A PICTURE.

The picture is one, which a person would not have the pleasure to look at. It is very dirty everywhere. The door is marked to with dots of fingers and the lock is broken halfway out the door. Near the door stood man who with an impression very close like that of the room. His clothes are more ragged and filthy; also his shoes are not worth wearing. The shoes are just about holding on his feet. In the rear of the hall is a washstand not fit to have in a house, on which is a broken pitcher and filthy ragged towel, and also a washbasket with clothes in it. The clothes were so dirty and filthy as though they were not washed for a long time. The window, which did brought but little light in the hall on account of dirt on the window pane, also the walls with the half of the plaster shaken off. It is a dreadful

place to have people live in such places as this, here is the place where the tuberculosis are in great numbers and should be abandished from the whole earth.

DECREASE OF DRINKING AND DRUNKENNESS IN ENGLAND.

From a comparative study of social conditions, and from the customs returns and the reports of breweries, it has been determined that alcoholism is on the decline in England. Temperance societies are growing in influence, and public sentiment is being swayed in favor of abstinence. At the instance of parliament a special committee was appointed which made an exhaustive investigation. The report of this committee is of sufficient interest to warrant reprinting. It is as follows:

The abuse of alcoholic stimulants is a most potent and deadly agent of physical deterioration. Alcoholic persons are specially liable to tuberculosis and all inflammatory disorders. Evidence was placed before the committee showing that in abstinence is to be sought the source of muscular vigor and activity. The lunacy figures show a large and increasing number of admissions of both sexes which are due to drink. The following facts, recognized by the medical profession and placarded all over France by order of the Government, are published in order to carry out the recommendation of the committee and to bring home to men and women the fatal effects of alcohol on physical efficiency: (1) Alcoholism is a chronic poisoning, resulting from the habitual use of alcohol (whether as spirits, wine, or beer) which may never go so far as drunkenness. (2) It is a mistake to say that those doing hard work require stimulants. As a fact no one requires alcohol as either food or tonic. (3) Alcohol is really a narcotic, dulling the nerves, like laudanum or opium, but is more dangerous than either in that often its first effect is to weaken a man's self-control, while his passions are excited; hence the number of crimes which occur under its influence. (4) Spirits, as usually taken, rapidly produce alcoholism, but milder alcoholic drinks, as beer, and even cider, drunk repeatedly every day produce, after a time, alcoholic poisoning with equal certainty. (5) The habit of drinking leads to the ruin of families, the neglect of social duties, disgust for work, misery, theft, and crime. It leads also to the hospital, for alcohol produces the most various and the most fatal diseases, including paralysis, insanity, diseases of the stomach and liver, and dropsy. It also paves the way to consupmtion, and frequenters of public houses furnish a large proportion of the victims of this disease. It complicates and aggravates all acute diseases; typhoid fever, pneumonia, and erysipelas are rapidly fatal in the subject of alcoholism. (6) The sins of alcoholic parents are visited on the children; if these survive infancy they are threatened with idiocy or epilepsy, and many are carried away by tuberculous meningitis, or phthisis (consumption). (7) In short, alcoholism is the most terrible enemy to personal health, to family happiness, and to national prosperity.

NEWS ITEMS AND PERSONALS.

The Wisconsin State Board of Medical Examiners, at its recent meeting in Madison, issued 67 licenses to non-residents to practice in this state. The new action taken at this meeting is the removal of the one year restriction heretofore required of non-resident doctors. It has been the custom to demand of physicians licensed in other states that they practice one year before honoring their licenses in this state.

The following officers were elected: President, W. T. Sarles of Sparta; secretary, J. V. Stevens of Jefferson. The retiring president, Dr. A. P. Andrus of Ashland, was voted a resolution of thanks.

The Board resolved that a committee of three be appointed to inquire into charges recently said to have been made, that the state medical examiners are acting in an irregular manner and that the secretary of the board was acting in the interests of advertising houses.

The Profession vs. the Quack. Dr. B. C. Brett, of Green Bay, in a recent communication to the *Green Bay Gazette,* parries most excellently the charge of that paper that the opposition of the medical profession to quack advertisements is due to a feeling that our revenues are being interfered with. He shows very clearly that our constant efforts to encourage preventive medicine, thereby proving ourselves public benefactors to our actual pecuniary loss, puts the lie to any argument such as is advanced to explain our opposition to dishonest methods, and in this category must be placed the dishonesty in motive actuating the newspapers that oppose legislation governing the regulation of advertised preparations.

College Changes. Drs. L. F. Jermain, Professor of Medicine, D. J. Hayes. Professor of Surgery, and R. G. Sayle, Professor of Operative and Clinical Surgery, all of whom until recently members of the faculty of the Wisconsin College of Physicians and Surgeons, have severed their connection with this institution and have joined the faculty of the Milwaukee Medical College.

Dr. V. H. Bassett has resigned the chair of pathology held during the past year at the Wisconsin College of Physicians and Surgeons.

Dr. Charles R. Head, a pioneer physician of southern Dane county, died at his home in Albion, on June 19th, aged 85. He came to Wisconsin in 1839. Dr. Head was a graduate of the College of Physicians and Surgeons, New York, in 1848. While a member of the Assembly in 1853 he drafted and introduced the bill in the Legislature, which abolished capital punishment in Wisconsin. He was also the founder of Albion Academy, and a member of the Board of Pension Surgeons for many years.

Dr. Edmund Kovats, a well-known physician of Milwaukee, died of pneumonia on June 15th, after a two weeks' illness, at the age of 60 years. Dr. Kovats was born in Hungary. He studied medicine in Vienna and Prague, and came to America in 1882, since which time he has been in active practice in Milwaukee. He had for many years been on the staff of the Milwaukee Hospital and was held in high esteem by his colleagues.

Dr. Geo. C. Ruhland of Milwaukee, who was given a temporary appointment as bacteriologist to the Milwaukee Health Department upon Dr. Otho Fiedler's resignation two months ago, has been given a permanent appointment, having very creditably passed the examination of the civil service commission. Dr. Ruhland served as war correspondent of a Milwaukee paper during the Spanish-American war.

The Wisconsin Eclectic Medical Society met at Kilbourn on May 24th, and elected the following officers: President, Dr. M. B. Wood, Pittsville; 1st vice-president, Dr. A. A. Duclos, Kilbourn; 2d vice-president, Dr. A. E. Winter, Tomah; secretary, Dr. J. B. Stevens, Jefferson; corresponding secretary, Dr. Clair, Horicon; treasurer, Dr. J. F. Stillman, Walworth. Eighteen doctors were present at the meeting.

Smallpox has broken out among the Indians at White Rapids, a small settlement twelve miles northeast of Wausaukee, where about 40 Indians make their home. Seventeen Indians are down with the malady. They contracted the disease from an Indian who recently returned from one of the river drives. He left White Rapids and is said to be visiting at some of the nearby reservations.

A new trial, on the ground that the verdict was contrary to the preponderance of evidence, has been granted Dr. A. J. Patek in a suit in which the plaintiff recently was awarded over $800 damages on the allegation that he had incurred mental suffering because of the physicians' refusal to return his mother's stomach, removed at an authorized autopsy.

Drs. William and Peter Jobse of Milwaukee, formerly associated in practice, have dissolved partnership. Dr. William Jobse has associated himself with Dr. F. M. Schulz, former Health Commissioner, and Dr. Peter Jobse has become associated with Drs. Thos. Fitzgibbon and L. F. Jermain in the practice of medicine and general surgery.

Launch New Chapter. The Omicron Chapter of the medical fraternity Phi Rho Sigma has been organized in Milwaukee, with the following physicians as officers: Drs. R. G. Sayle, G. C. Ruhland, Alexander Hough, Claude S. Beebe.

Dr. A. O. Arndt, one of the leading physicians of Oconto, died on June 16th, as a result of accidentally swallowing a dose of carbolic acid. Noticing his mistake he called for an antidote, but all efforts to save him were unavailing.

Dr. Thomas H. Hay has removed from Milwaukee, where he was engaged in practice for many years, to Stevens Point, Wis., to take charge of River Pines, his recently completed private sanatorium for incipient tuberculosis.

Several Oconomowoc physicians have been threatened with arrest by Dr. Harper, secretary of the State Board of Health, because they sent a smallpox patient out of their city into Milwaukee to be cared for.

Abortionist Fined. Dr. Edward C. Schnittker of Milwaukee, abortionist, has been fined $250.00 for performing an operation recently. He is now out on $2,000 bail on a charge of manslaughter in another case.

The Childrens' Free Hospital of Milwaukee, has been made a beneficiary of the estate of the late Mrs. Mary Tibbits Cameron of Pasadena, Cal. A bequest of $6,000.00 was left this institution.

Dr. Arthur W. Rogers, until recently associated with Dr. Richard Dewey at Wauwatosa, was married on July 3d, to Miss Theresa Limberg. Dr. Rogers will locate in Milwaukee

Dr. A. H. Kremers, formerly interne at the Milwaukee County Hospital, has been selected to fill the vacancy at the Emergency hospital caused by the resignation of Dr. H. H. Fyfe.

Dr. Otho Fiedler, formerly bacteriologist of the Milwaukee Health Department, has associated himself in the practice of medicine with Dr. Jerry McCarthy, at Athens, Wis.

Dr. L. F. Prince, for many years superintendent of the Palmyra Springs Sanitarium, has located at Berlin, Wis. He will confine himself to surgery.

Dr. F. R. Garlock of Racine was elected medical director of the Wisconsin Department of the G. A. R. at its recent encampment in Marinette.

Dr. G. T. Dawley of New London, who is charged with performing a criminal operation, has been arrested and released under $2,000 bonds.

Dr. L. W. Anderson shot off one toe on his right foot on July 8th while handling a revolver which he thought was not loaded.

L. H. PELTON, M. D.

PRESIDENT STATE MEDICAL SOCIETY OF WISCONSIN, 1906-1907.

Dr. L. H. Pelton, the Society's new president, has been before the medical profession of this state many years and is well and favorably known to Wisconsin physicians. Graduating at Bellevue Hospital Medical College in 1873, he located in the vicinity of Sheboygan, practicing there until 1885 when he removed to Waupaca, where he has been since that time.

Various honors have been his during his residency in Waupaca: for ten years he has been that city's health officer; president of the Board of Education two years; ex-president of the Northwestern Wisconsin Medical Association; at present enjoying his second term as president of the Waupaca County Medical Association. He is also vice-president of the First National Bank of Waupaca.

Dr. Pelton has been most loyally and constantly devoted to the Society's best interests, and this demonstration of its appreciation of his services is a most fitting tribute to a worthy member.

IN MEMORIAM.

A. B. NEWTON, M. D.

BY CHARLES H. MARQUARDT, M. D.

Dr. A. B. Newton, of Bangor, La Crosse county, Wis., died at his home on June 6th. Dr. Newton was born in Oneida county, New York, on the 3d of July, 1842. He served as hospital steward in the civil war from 1861 to 1865. He was graduated from Rush Medical College in 1867, settled in the village of Bangor and practiced his profession to within ten weeks of his death, which was due to aneurysm. He was an ex-president of the La Crosse County Medical Society, an up-to-date practitioner, thoroughly devoted to his profession and highly esteemed by his fellow practitioners. He took a deep interest in whatever concerned the community in which he lived, not only in matters medical, but in whatever was of the slightest as well as of profound interest to his fellow townsmen. His reading was extensive, his judgment unbiased, and he was a true friend to all without any distinction. Rich and poor were alike to him, if their wants were meritorious; he was keen to detect deception, and the nonworthy were quickly assigned to their place. As a physician he had the full confidence of his community as well as their love and respect.

Dr. Newton was one of the old-time doctors and will be missed by all lay and professional acquaintance. He worked hard and did his work well. He leaves a widow and three grown children, and a host of friends who think only kindly of him.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior. 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

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FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam
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FOR FOUR YEARS.

7th Dist., W. T. Series, - - Sparta
8th Dist., T. J. Redelings, - - Marinette

FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit
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FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

FOR THREE YEARS.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., J. S. Walbridge, - - - Berlin

FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A. T. Holbrook, - Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

THE 1906 MEETING.

The 1906 Annual Meeting will go on record as the largest, and, on the whole, one of the most successful in the history of the State Society. The registration was a trifle less than 500, with an actual attendance considerably larger, many of the Milwaukee members neglecting to register, since it was entirely voluntary. The character of the papers presented was excellent. They showed greater care in preparation and were above the average in ability. The same is true of the discussions—though it is a pity that we have so little time for general discussion. The plan of printing a synopsis of the papers upon the program was generally approved, and the opinion was expressed that they might, with advantage, be made even fuller next year. The arrangements for the meeting were excellent, the only drawback being in the audience room, which was a trifle disappointing in some ways. In other respects the building was very satisfactory.

It was centrally located with plenty of good room, while it was a great comfort to have the commercial exhibits upstairs and so far away that they did not at all disturb the meeting with their noise and bustle, as has frequently been the case.

The business of the Society was transacted by the House of Delegates with promptness and good judgment. It has been stated—in some quarters—that the general sessions of the Society had become tame and uninteresting because of the withdrawal of this element of "business" and "politics" from their consideration. Most everyone, I am sure, thinks this a most welcome release, and is very willing that the House of Delegates should assume this part of the work. The attendance of Delegates was not as general as it should have been, and if the House of Delegates is to be a truly representative body, the county societies must see to it that only those are elected delegates who will be sure to be present at all the sessions of the House—especially the first. The only change in the composition of the Council was the election of Dr. J. V. Mears of Fond du Lac as Councilor of the 5th District in place of Dr. Pritchard, resigned. Dr. E. L. Boothby of Hammond was elected Chairman of the Council for 1906. He is energetic and enthusiastic. He thoroughly believes in our present plan and also that the Council should be so organized as to be an important factor in making it effective. It seems probable we shall hear from him before the year ends.

The social features of the meeting were the smoker at the rooms of the Milwaukee Medical Society, Wednesday evening, and the boat-ride to White Fish Bay Thursday evening. Both were well attended and up to the usual standard. The smoker affords about the only good opportunity to get acquainted with each other, and so is among the necessities. All enjoyed the trip to White Fish Bay, too, but it would have been more social, and so more enjoyable, if the Society could have gone and taken supper together more in a body. If we are to do away with the formal banquet of by-gone days, some modification of it might be desirable, as helping out in a social way.

The spirit of the meeting was all that could be desired. So far as known there are no cliques nor divisions in the Society, but on the contrary, a very united and harmonious feeling and action. The present plan of organization is being cordially accepted and loyally supported by the whole membership. As the secretary of the Green County Medical Society says in his invitation to non-members to join the Society, "The organization of the medical profession into county medical societies is now sucessfully instituted in every county in Wis-

consin, and it has come to *stay*. So fall in line and keep up with the profession, and become a live, progressive, and useful member of the Green County Medical Society." As a matter of fact we have already in our ranks nearly all the desirable men in the state who are eligible, and, as things look now, we shall soon have them all.

As to growth in the past year, as stated elsewhere, the gain when comparing the number who have paid the 1906 dues with the total membership of 1905, is 86—making the present 1906 membership 1434. In the 69 county societies in the state, 34 show a gain from 1 to 15, 17 have lost (greatest loss is 5), while 8 have remained the same.

The decision to hold the next Annual Meeting at Superior is a wise one. With every part of the State equally loyal to the State Society, it is manifestly unfair and impolitic that all meetings should be held in the southern part of the state. It will be in the nature of a joint meeting with the Minnesota State Society, which meets at Duluth at the same time. So we will not only have the pleasure of a better acquaintance with our brethren across the river, but we are sure to receive a most cordial and even enthusiastic welcome from our brethren in the north. Already it is safe to count on a first rate meeting and a fine time generally.—C. S. S.

RESUME OF THE PROCEEDINGS OF THE SIXTIETH ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN.

The sixtieth annual meeting of the State Medical Society of Wisconsin was held at Milwaukee, June 27-29, 1906. The Society is growing rapidly and proving to be most successful under the regime of its new constitution. Its membership is over 1,450 and the attendance at the meeting was about one-fourth of the membership.

At the meeting of the house of delegates, reports of councilors were received, showing a healthy state of affairs. The treasurer's report showed a sound financial condition.

Drs. W. T. Sarles and B. M. Caples were elected delegates to the American Medical Association, with Drs. J. V. R. Lyman and H. V. Würdemann as alternates.

Dr. F. T. Nye of Beloit was elected councilor of the third district; Dr. C. A. Armstrong of Boscobel was elected councilor of the fourth district, and Dr. G. V. Mears of Fond du Lac was elected councilor of the fifth district, vice Dr. J. F. Pritchard, resigned.

The following officers were elected:

President, Dr. L. H. Pelton of Waupaca.
1st vice-president Dr. A. J. Burgess of Milwaukee.
2d vice-president, Dr. W. E. Ground of Superior.
3d vice-president, Dr. W. T. Pinkerton of Prairie du Chien.

Complaint being made that the regular medical profession was not adequately represented on the State Board of Medical Examiners, a committee was appointed to investigate the matter, which presented a report, which the house adopted, as follows:

"Your Committee begs leave to report that in their opinion the regular medical profession is not adequately represented on the board of medical examiners, over 2600 regulars being licensed in the state, as against 200 homeopaths and 100 each of eclectics and osteopaths. We recommend, therefore, that the committee on public policy and legislation be instructed to investigate the subject, and if thought advisable, to introduce a bill seeking to remedy this defect. Inasmuch as both homeopaths and eclectics are now admitted on an equal footing as members of the state society, a demand that the board consist of a majority of regulars should be insisted upon."

Drs. A. W. Gray, I. G. Babcock and O. H. Foerster were elected as a "Committee on Public Policy and Legislation."

The council was instructed to make Milwaukee county a district society, so that it might be eligible as a district from which to select vice-presidents.

The appointment of a delegate to the American International Congress on Tuberculosis was left to the incoming president.

Motion to consider resolutions regarding fees for life insurance examinations was laid on the table for the reason that the A. M. A. has appointed a committee to consider the same matter.

A communication from the council on medical education of the A. M. A., regarding appointment of a committee on medical education, was referred to the incoming president, with power.

Chapter 4, section 11, of the By-laws was amended to the effect that hereafter vice-presidents of this society may be chosen from the past presidents as well as the presidents of district societies.

Chapter 5, section 2, of the By-laws was amended to the effect that the committee on nominations shall consist of 12 members instead of 10,—so that the number of members of the committee shall equal the number of councilor districts.

The contract of last year with the Wisconsin Medical Journal was renewed, and council instructed to set aside $1.20 from each member's dues for the ensuing year, for subscription to the Journal.

Superior was named as place of holding the next annual meeting. Adjourned.

GENERAL SESSIONS.

President J. R. Currens read the president's annual address. He gave a history of the successful fight for good medical legislation in Wisconsin and showed how necessary it is for the medical man to

take part in politics on account of medical legislation and the good of the people in general.

Dr. W. H. Neilson of Milwaukee read a paper on "Purpura." He said that purpura is frequently of infectious origin; that the variations of purpura depend on the intensity of the infection and the condition of the blood.

Discussion.

DR. G. H. FELLMAN of Milwaukee, mentioned the marked changes taking place in the blood and that the various forms of the disease were really manifestations of the idiosyncrasy of the individual.

DR. L. SCHILLER of Milwaukee, thought it very likely that those conditions which arise de novo or which are autogenetic or idiopathic, as well as conditions of a rheumatic nature, are due to toxins produced by germs the nature of which we have not as yet discovered, and that other apparent symptoms are the result of this toxic condition, and are not in themselves causative factors in the production of this disease.

Dr. U. O. B. Wingate of Milwaukee, read a paper on "Apoplexy, its Diagnosis and Treatment." He said that vital statistics are incomplete; that more accurate returns by physicians are necessary; that diagnosis of character and location of brain lesion are necessary as a basis for intelligent treatment; chronic endarteritis is the most common cause; suspect syphilitic history in cases between 20 and 45 years of age; the differential diagnosis between hemorrhage and thrombosis and embolism is difficult. The condition of the circulation is the key to the treatment.

Discussion.

DR. L. H. PELTON of Waupaca, said it is difficult often times to make a positive diagnosis in these cases, as it is of course impossible to make an antemortem examination. Compulsory autopsy in cases of sudden death would be desirable.

DR. WINGATE (closing): A careful attention to treatment of premonitory symptoms would prevent many cases of apoplexy, especially those due to thrombosis.

Dr. James S. Reeve of Appleton, read a paper on "Surgical Shock." He said, shock is a nervous deluge; its essential features are profound prostration of the whole body and fall of blood pressure aggravated by inspissation of the blood. Pure shock is treated by stimulating remedies. There should be added in cases of hemorrhage, hypodermoclysis, and in case of pain, anesthetic remedies, the greatest of which is cocaine.

Dr. A. H. Levings of Milwaukee, read a paper on "The Relation of Blood Pressure to Surgery." He said that while commendable progress has been made, the prevention and treatment of lowered

blood pressure following operations and accidents, are only in their infancy. It should be remembered that the lowest blood pressure compatible with life, is often beneficial to the patient. Strychnin, morphine, digitalin, adrenalin chloride and dessicated suprarenal gland are valuable adjuncts in treatment, and in loss of blood pressure due to hemorrhage, hypodermoclysis is advisable.

Discussion.

DR. J. R. BARNETT, of Neenah: Where there is danger of vital depression, it is well to tie an extremity before anesthetization, this storing up pure blood which can be released into the circulation if required.

DR. RALPH ELMERGREEN of Milwaukee: In our definition we should eliminate conditions due to pain, anemia of the brain, syncope, etc., which are often confused with shock. The condition of the medulla in shock may be compared to polarization in electricity or crystalization in steel.

DR. W. E. GROUND of Superior: We must not class hemorrhagic conditions and resulting collapse with shock. Shock is really due to an exhaustion of the vasomotor centers from countless repeated impressions sent to them by the afferent nerves.

DR. HERMAN REINEKING of Milwaukee: In shock there is such an intense overpowering of the nervous system that it is absolutely unable to carry on its work. A detail of treatment to be emphasized is personal attention. Do not trust too much to attendants and nurses.

DR. F. SHIMONEK, of Milwaukee, deprecated the use of strychnin. Adrenalin is the drug to use in shock or in lowered blood pressure. Never use normal salt solution unless there is loss of blood.

Dr. John M. Dodd of Ashland, read a paper on "Treatment of Sepsis." He said that serum therapy will in time be an almost certain means of curing sepsis, but until then we must simply be guided by the light of experience. If we cannot attack the germ directly we must keep the invaded body in the highest state of efficiency. I have little confidence, he said, in medical remedies for sepsis other than to keep the bodily functions properly performed. The first object of treatment is to minimize the blood poisoning, and second, to prevent destruction of tissue, and abscess formation. The most appalling infection met with is that of the peritoneum.

Discussion.

DR. L. G. NOLTE, of Milwaukee, recommended a dressing composed of one per cent. carbolic acid. Do not use a greater per cent. as evaporation increases the concentration. He never had a case of Dermatitis, Necrosis or Gangrene follow the use of carbolic acid. Carbolic acid, moreover, has the advantages of being an analgesic and keeping the blood from the infected part.

DR. R. G. SAYLE of Milwaukee: Let the infected point alone. Rubbing or palpating a focus of infection may extend the infection, and is criminal massage. Rest of the infected part is of paramount importance.

Dr. Charles H. Lemon of Milwaukee, described a "New Method for the Reduction of Fractures of the Lower Extremity." He described the remarkable results attained by the Lemon-Mueller fracture apparatus designed and built in Milwaukee. This apparatus enables the surgeon to make temporary extension, to accurately adjust fragments, and hold them rigidly in position while the plaster cast is applied. The use of this apparatus will absolutely preclude inaccurate apposition of broken parts and overriding of fragments.

Dr. S. R. Moyer of Monroe then read a paper on "The Benefits of Modern Therapeutics." He said that the judicious application of preventive medicine accomplishes more than all the painstaking efforts to heal, and this is the main trend of progress in present years. We are living in an era of great therapeutic advancement, instancing serum therapy, fresh air treatment of tuberculosis, the treatment of yellow fever, and organo-therapy in general. Proprietary preparations, whether ethical or otherwise, are for the most part absolutely worthless; but the therapeutic effects of modern surgery are extraordinary.

Dr. J. P. McMahon of Union Grove, read a paper on "Negligence of the Profession in its Duty to Secure the Establishment of Temporary Detention Quarters for the Alleged Insane." He said, the alleged insane should not be committed to jails or insane asylums until careful diagnosis is made, but temporary detention quarters should be established. The law of Wisconsin permits the establishment of such quarters by county boards, but unfortunately is not mandatory. In view of the present ineffective law he would recommend the appointment of a committee from the society at large to co-operate with county societies in securing necessary quarters throughout the state.

Discussion.

DR. W. F. BECKER of Milwaukee: The chief necessity of temporary detention quarters in these cases is to keep the alleged insane out of police stations and lockups; we must divorce insane from criminal proceedings.

DR. WALTER KEMPSTER of Milwaukee: The law in Wisconsin as in many other states is extremely crude. It is as absurd for a jury of laymen to attempt to determine a man's sanity as it would be for such a jury to attempt to determine whether he had appendicitis or not.

Dr. J. M. Evans of Evansville, read a paper entitled "Concerning Endometritis." He said, endometritis is caused either by infection or disturbed circulation. Diagnosis is usually easy, but prophylaxis is an important factor.

Dr. G. E. Seaman of Milwaukee, read a paper on "Some General Considerations on the Diagnosis and Treatment of Injuries of the

Eye." He said that great interest attaches to all injuries of the eye on account of possible loss of vision; complete history of case is essential; prompt and intelligent treatment at the outset is of great importance and is based largely upon broad principles of surgery.

Discussion.

DR. P. H. MCGOVERN of Milwaukee: Perforating injury in the dangerous zone from the margin of the cornea outward for at least a quarter to a third of an inch, is bound to be serious, and should be turned over to the specialist at once, as should all serious injuries of the eye.

Dr. John H Musser of Philadelphia, delivered the Annual Address in Medicine, on the subject of "Pancreatitis." He made a clear statement of the pathology and differential diagnosis of the disease. He said: Very little reliance can be placed on the condition of the blood in attempting to differentiate between affections of the gall bladder and pancreatitis. Leucocytosis is more pronounced in acute pancreatitis than in acute inflammations of the biliary passages. The stools are white or slaty, and are large in amount in pancreatic disease; the neutral fat is relatively increased, but may occur in other conditions and may not occur in pancreatitis. The presence of nuclei in the feces, determined microscopically, is characteristic of pancreatitis. Take meat fiber, sew it in a little bag, which passes through the intestinal canal; when this is recovered from the stool the meat is examined for nuclei. In patients who have not pancreatic disease the nuclei are always digested. Excepting the nuclei test, laboratory tests are of little value because of the many qualifying circumstances that must be taken into consideration. With regard to urine, we should lay more stress upon the relative proportions of the ethereal sulphates present than anything else. It is a fair conclusion, then, that for a differential diagnosis of pancreatic affections, we must still rely upon close clinical observation and a careful study of the history of each case, availing ourselves of course of the aid (slight as it is) obtained from laboratory findings.

Dr. Julius Noer of Stoughton, read a paper on "Pneumonia. Some Clinical Observations." He said: Pneumonia is a symptom of an acute infectious disease whose clinical phenomena and pathological findings are usually quite characteristic. It is probably due to mixed infection or toxemia. Old views are confusing and misleading. Treatment should be symtomatic, not specific.

Discussion.

DR. W. H. WASHBURN of Milwaukee: Pneumonia is a general infection. The disease is not caused by the same germ in every case; therefore antitoxic

sera are disappointing. Alcoholic stimulants are not desirable, but actual cardiac stimulants, such as strychnin, are indicated. In cases of delirium we need not hesitate to use a hypodermic of morphine.

DR. W. H. NIELSON of Milwaukee: We should have something hard and fast to tie to. I have had good success in the use of full doses of digitalis followed by acetate or citrate of potassium, begun as soon as the presence of the disease is even suspected.

Dr. C. A. Harper of Madison, read a paper on "Tuberculosis Sanatoria and Treatment." He said: State sanatoria should closely adhere to the rule to admit only patients suffering from incipient tuberculosis, and should return to their homes 50 to 75 per cent. of the patients cured or on the road to recovery. Advanced cases should be treated in consumptive hospitals. As tuberculosis is essentially a house disease, the house should be eliminated as a factor in the treatment of tubercular patients. We are engaged in a crusade of education which cannot be checked until the greatest foe of mankind is defeated at every point.

Discussion.

DR. F. F. BOWMAN of Madison: State Sanatoria are of prime importance in aiding the Medical profession in methods of treatment, and in instructing the laity by example. The medical world is a unit on the question and on the methods of fighting this disease.

DR. C. H. STODDARD of Milwaukee described the tuberculosis movement in Wisconsin and asked for the assistance of the State Medical Society as a body in stimulating the movement, and asked each member to assist in the formation of local anti-tuberculosis leagues.

DR. G. E. SEAMAN of Milwaukee, mentioned the state institution to be erected at Wales, Wis. The medical profession, he said, must lead and bear the burden of the contest. A tuberculosis league will be formed under the sanction and approbation of this society.

Pursuant to a motion made by Dr. Stoddard, a committee consisting of Drs. C. A. Harper, C. H. Stoddard, G. E. Seaman, John M. Beffel and J. W. Coon was appointed to consider the question of the formation of a tuberculosis league to report to-morrow at 10 o'clock A. M.

Dr. Lawrence Hopkinson of Milwaukee, read a paper on "Muco-Membranous Colitis," in which he described the etiology, pathology, symptoms, attacks, differential diagnosis and treatment of the disease.

Discussion.

DR. W. C. F. WITTE of Milwaukee, discussed the surgical aspect of the disease, and stated that cases due to traumatism, misplaced abdominal organs, disease extending from neighboring organs, especially the appendix, gall bladder and pelvis, are surgical.

Dr. Richard Dewey of Wauwatosa, read a paper on "Nervous and Mental Diseases in General Practice." He said, the lack of instruction in these diseases in medical colleges of the past and even up to the present time, is lamentable. There is a tendency on the part of the general practitioner to adopt inappropriate measures of treatment in psycopathic cases, using sedatives and narcotics too freely; sending patients away for travel who are in no condition to benefit by this measure; advising patients that there is nothing the matter with them, or that it is all "imagination"; also that the disagreeable symptoms will soon "wear off," and no special treatment is necessary. The writer dwelt on the powerful influence of the mind over the body, both for good and ill, and necessity for reckoning with this agency in measures taken.

Discussion.

Dr. W. F. Becker of Milwaukee said: Mild cases of neurasthenia and melancholia are better treated in private practice than in institutions, and in such cases bed treatment is often the best. Cerebral palsies in children, if treated by the neurologist and the orthopedist in conjunction, frequently show excellent results. Because a person is insane is no reason why ipso facto he should be sent to an insane asylum or sanatorium. Paranoiac patients are often a source of absolute danger to the neurologist.

Dr. H. E. Dearholt of Milwaukee, read a paper on "Static Disorders of the Feet." He said: The title of this paper covers all possible errors in weight bearing not primarily due to congenital or acquired faulty structure. Modern civilization is to blame for these conditions. The regulations of the army and various gymnastic regulations are entirely wrong in the position demanded of the feet in activity. Misguided directions are given children to turn their toes outward in standing and walking, and feet that would have grown into strong active members become disposed to future disorder.

The treatment of static foot disorder is as specific as the treatment of syphilis or malaria. We are given a definite mechanical disorder which is to be rationally met only by the rational application of mechanical measures. The result of ideal treatment is the complete restoration of the foot structurally and functionally; foot gymnastics are important; massage is of value; supports and rests may be useful.

Dr. M. Iversen of Stoughton, read a paper entitled "Remarks on Surgery of the Naso-Pharyngeal Structures." Cutting operations are of great importance in securing free ventilation of the nose and pharynx. It is advisable to seal the cut tissues with trichloracetic acid albumin film. Free ventilation is of service for the relief of

chronic deafness of a catarrhal nature, if the structures are not degenerated or atrophied.

Discussion.

DR. H. V. WURDEMANN of Milwaukee, advised complete removal of adenoids and of faucial tonsils, if the obstruction affects the general health, but to save as much of the turbinal body as possible when turbinotomy is done.

DR. HERMAN STOLTE of Milwaukee: The restoration of the normal air passage by removal of adenoids, etc., effects a lasting cure in children. The operation of turbinectomy is greatly abused. Save as much of the turbinated bodies as possible.

DR. G. E. SEAMAN of Milwaukee, warned against the use of the Carmal-Jones spoke-shave, which has been abandoned even by its inventor.

Dr. W. F. McCabe of Beloit, read a paper on "Obstetrical Responsibility During Gestation." He said that the attending physician should give ample time to each case and should be well paid for doing so. He advised that examination of the urine should be made frequently.

Discussion.

DR. JULIUS NOER of Stoughton said that confinement being a physiological process, the laity fail to see the great importance of careful medical attention. Attention to metabolism is especially important. Lying-in hospitals are far preferable to homes for these cases.

DR. H. SYLVESTER of Milwaukee said: Keep pregnant women in pleasant surroundings, largely in the open air. Women themselves are the objecting factor to lying-in hospitals.

Dr. W. H. Washburn of Milwaukee, read a paper on the subject of the "Medical Aspects of Exophthalmic Goitre." He said that the clinical features of exophthalmic goitre are not due to the same anatomic lesions in all cases, and in some no lesions other than hypertrophy of the thyroid can be found and this hypertrophy of the thyroid is to be regarded as a consequence of the disease rather than the disease itself. We have no present means of determining in a given case what, if any, anatomic lesions exist. From these facts it follows that treatment in each case must be tentative. Many cases recover permanently and these are most likely of toxemic origin. Where sympathetic nerve or parathyroid lesions exist, surgery doubtless holds out the only hope of relief.

Dr. H. A. Sifton of Milwaukee, read a paper on "The Surgical Treatment of Goitre." He said: The etiology, pathology and treatment of goitre are far from being settled. Of all surgical procedures thyroidectomy has afforded most relief in goitre. The administration of the anesthetic is an important question and may be fraught with danger; but I have never seen a case which demanded a local anesthetic where general anesthesia was contra-indicated. Do not use

cocaine; ether is just as safe. Thyroidism is an unfortunate post-operative complication. Osler says that medicinal measures in thyroid lesions are notoriously uncertain. Good results from medicinal treatment can be expected in the hypertrophies only. When such treatment fails surgery should be resorted to. All asymmetrical enlargements of the thyroid in persons over 30 should be removed. If thyroidectomy is done early the best results are achieved.

Dr. Geo. V. I. Brown of Milwaukee, read a paper with stereopticon views, on the "Basal Principles of Oral, Nasal and Facial Deformities with Special Reference to Harelip and Cleft Palate." He presented considerations of pre-natal and post-natal conditions that have an influence in the development of deformities. Stereopticon views were shown of sections of human embryo heads and pictures of faces of infants, children and adults, showing nasal or oral defects of varying degrees before and after operative correction.

Dr. A. J. Ochsner of Chicago, delivered the Annual Address in Surgery on the subject of "The Clinical Aspect of Stomach Surgery." He gave a review of the anatomy of the stomach. In this portion of the body as well as in every other, there is a natural tendency to repair. A diseased stomach which has recovered without surgical interference is very much better than a stomach which has been operated on. Hygienic measures are of the highest importance. If normal conditions can be otherwise restored, do not operate. From a surgical point of view, aside from malignant disease, we have most frequently to deal with obstruction. Dr. Ochsner reviewed the various forms of obstruction and indications for operation, viz., (a) extreme dilatation with decomposition of residual stomach contents; (b) starvation; (c) threatened perforation; (d) adhesions increasing obstruction; (e) incipient carcinoma. X-ray, blood and urinary examinations are of but slight diagnostic importance; but in carcinoma and ulcer blood will be found in the feces. It is easy to differentiate between gall stones and stomach disease; duodenal ulcer can also be readily distinguished. We must look upon the stomach as a machine, and must try to restore that machine to as nearly normal working condition as possible.

The committee on the organization of a state tuberculosis league reported in favor of the organization of such league, and recommended that a committee be appointed to consist of one member of this society from each councilor district to further the work in the several districts; and that also a special committee of five be appointed for the incorporation of a state association for the study and prevention of tuberculosis.

This report was adopted, and the meeting adjourned.

CALUMET COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Calumet County Medical Society was held at New Holstein, June 5, with a good attendance.

Dr. Wm. A. Martens of New Holstein read a very interesting paper on *Hysteria* and followed by relating and describing several typical cases. The discussion was opened by Dr. C. J. Greengo of Chilton and followed by other members present.

The following applicants were admitted to membership in the Society: Dr. Wm. Forkin of Hilbert, Chicago P. & S. 1905. Dr. C. L. R. Mac Collum, of Forest Jct., Milwaukee Med. 1905.

This leaves but one practitioner in the county who is not a member.

A memorial paper relative to the death of former president J. E. Luce was read by Dr. I. N. McComb of Brillion and will be kept in the records of the society.

Dr. N. J. Knauf of Chilton was elected to fill the unexpired term of Dr. Luce, deceased, as censor.

After the meeting a dinner was served the members at the home of Dr. Wm. A. Martens, and was thoroughly enjoyed. All present felt the mutual benefit of these meetings and remarked at the fraternal feeling and good fellowship shown

The next meeting will be held in Chilton in September.

L. R. SLEYSTER, M. D., *Secretary.*

FOND DU LAC COUNTY MEDICAL SOCIETY.

The July meeting of the Fond du Lac Medical Society was held at Green Lake, July 11. It was a joint meeting with the Green Lake-Waushara Society and President Loope of Eureka presided.

Dr. Loope made a few remarks in regard to the social character of the meeting and announced that the only paper on the program was by Dr. J. P. Connell of Fond du Lac on *Gastric and Duodenal Ulcer.* Dr. Connell thought early diagnosis and prompt medical treatment of prime importance, as surgical intereference in benign cases gives us a mortality of 5 per cent.

The paper was discussed by Drs. Wiley, Foly, Hall, Loope and Connell.

F. A. READ, M. D., *Secretary.*

CURRENT LITERATURE.

Legal Responsibility of the Physician for the Unborn Child.—In his chairman's address before the Section on Obstetrics and Diseases of Women of the American Medical Association, Dr. C. S. Bacon (*Journal A. M. A.*, June 30), takes up the subject of the legal responsibility of the physician for the child *in utero*, pointing out first that it is as much a human being before birth as afterward, but that its biologic and its legal status do not altogether coincide. All persons after birth are on the same plane, and no one is justified in taking their lives except in self-defense or when the state, through its judicial officers, has declared it necessary for the welfare of society. The fetus has not the same legal protection; under certain circumstances feticide is considered justifiable. It is important that the physician understand the conditions and know what his duties are in obstetric emergencies. Operations involving the destruction of the life of the fetus introduce a question that is different from any that can come up in ordinary surgery and involve an additional risk. It is this responsibility of the obstetrician that is particularly discussed by Bacon, who points out that the old common law rulings have been replaced by statutory enactments, in which it is generally recognized that abortion is permissible when required to save the life of the mother. In some states the law requires that the advice of two physicians be secured to determine the necessity of an abortion. When this is not the case, consultation is not essential, but is always desirable. The physical condition of the mother must be shown to require the operation. Fear of suicide or of remote results developing from a nervous condition does not justify abortion. Abortion induced on account of probable injury to health might lead to trouble if brought before a court. In general, the operation is held admissible in cases in which delivery is impossible without Cesarean section or some operation to enlarge the pelvic girdle, and that is refused by the mother. The legal standpoint as regards embryotomy is but little mentioned in the text-books, but in this country there is little or no doubt that if necessary to save the mother's life it would be justified by the courts. It has been discussed and decided by the medicolegal society of France that a physician can not there be compelled to perform an embryotomy against his own judgment or conscience. In some states in this country the burden of proof that it was necessary might be put on the physician, but in most it would be on the state. Many conditions that were once deemed indications for embryotomy are not now so considered. Judging from all the data found, Bacon concludes that the legal responsibilities of the physician are comparatively simple. If he believes the life of the mother is dependent on the sacrifice of the fetus, he can operate without fear, but it is always best to fortify one's opinion by consultation with a reputable colleague. The law does not recognize that the life of the unborn child is of equal value to that of the mother. In deciding on his moral responsibilities the physician may have more trouble; what is legally safe may not always be morally right. The frequency and boldness with which the right to decide the sacrifice of the fetus is claimed by the father or relatives of the mother must be firmly resisted. The only ground on which Bacon sees the physician can stand when he decides to destroy the fetus is a kind of implied authoriza-

tion on the part of the state which agrees to uphold the right of the mother to self-preservation when her life is endangered by that of the fetus.

Dislocation of the Outer End of the Clavicle.—C. L. SCUDDER, Boston (*Journal A. M. A.*, July 7), says that while ordinarily this dislocation is easily treated with pad and retention apparatus, occasionally it is hard to reduce and causes marked deformity. He reports two cases and also experiments on the cadaver, which, with other facts, seem to him to support the views of Poirier and Sheldon as to the lesions and treatment. The indications for operation in these cases are, therefore, irreducibility and failure to maintain reduction. The former is due to the interposition of the torn capsule or the ruptured trapezius, the latter to the rupture of the coracoclavicular ligaments. The indications are to remove interposed parts and suture torn ligaments. In dislocation of only moderate degree he would use only a retentive apparatus. When this does not suffice and in extreme cases, he would suture. Various methods of suturing have been employed: wire, silk and absorbable material, and different forms of pins. The placing of the suture he deems of some importance; to secure a firmer hold on the outer end of the clavicle a suture to make traction on the clavicle from below in the direction of the coracoacromial ligament will be most effective. The dorsal position relieves from the weight of the arm and hastens healing, as in the cases reported, in which the patient was kept for eight or ten days on the back.

Club-Foot. After having passed through a cycle of accepted methods of maltreating club-feet, the best surgeons to-day are following in the lines laid down by Hippocrates, an extract of which is here reprinted from Adams' translation: "In a word, as if moulding a wax model, you must bring to their natural position the parts which were abnormally displaced and contracted together, so rectifying them with your hands, and with the bandaging in like manner, as to bring them into their position, not by force, but gently; and the bandages are to be stitched so as to suit the position in which the limb is to be placed, for different modes of the deformity require different positions. And a small shoe made of lead is to be bound on externally to the bandaging, having the same shape as the Chian slippers had. But there is no necessity for it if the parts be properly adjusted with the hands, properly secured with the bandages, and properly disposed of afterward. This, then, is the mode of cure, and it neither requires cutting, burning, nor any other complex means, for such cases yield sooner to treatment than one would believe. However, they are to be fairly mastered only by time, and not until the body has grown up in the natural shape; when recourse is had to a shoe, the most suitable are the busskins, which derive their name from being used in traveling through mud; for this sort of shoe does not yield to the foot, but the foot yields to it." His directions for bandaging are excellent: "The parts are to be secured, with cerate containing a full proportion of resin, with compresses, and soft bandages in sufficient quantity, but not applied too tight; and the turns of the bandages should be in the same direction as the rectifying of the foot with the hand, so that the foot may appear to incline a little outward. And a sole made of leather not very hard, or of lead, is to be bound on, and it is not to be applied to the skin but when you are about to make the last turns of the bandages."

MISCELLANY.

Medical Reciprocity.—We are in hearty accord with the opinion expressed in the following paragraph: If national legislation is impracticable let us at least urge that reciprocity of the licensing powers between the states be made really instead of technically effective, and that provision be made for the old doctor, who has qualified by years of experience, even though he is not so well "posted" on the more technical branches. It is an absurdity to assume that such a man is competent to practice medicine in Wisconsin and incompetent to treat the sick in New York—or the reverse, as the case may be.—(*Am. Journal of Clinical Medicine.*)

Exeunt Dress Trains.—Last year, "to prevent danger to health and annoyance by raising of dust," the police board of Dresden forbade the ladies to allow their dress trains to drag on certain promenades and principal streets. By a recent action of the health commission, this order has been extended to cover the entire city, and disobedience shall be punished more severely than formerly. The present penalty for violations of this ordinance is by fine not exceeding $7.14, or imprisonment for a number of days. This is the first city in Germany to put itself on record as opposed to this menace to health.

Heart Removed and Returned to its owner.—We are informed that, in order to give relief to a man whose heart had been injured in a collision, the surgeons "took the organ out, washed it carefully, and then replaced it." Fortunately only one man was reported hurt or there might have been danger of inadvertently swapping hearts.

Relief for Seasickness.—A. C. Girard, San Francisco (*Journal A. M. A.*, June 23), has observed that 1-120 grain of atropin sulphate, with 1-60 grain of strychnin sulphate in hypodermic injection, is an effectual antidote to seasickness. In some persons resistant to atropin the dose may have to be repeated once or twice at hourly intervals, but usually one dose is sufficient for a whole voyage, apparently overcoming the disturbance until the traveler acquires his "sea legs." Occasionally, in a long trip with severe weather, renewal of the dose is required to keep up the effect. It is usually easily borne by adults; in only rare instances is the amount found to be too great. Hypodermic injection of the remedy has the advantage of acting quickly and of safety from cumulative action that might happen if repeated doses were given by the mouth. The rationale of the treatment may be found in the stimulating effect of the atropin on the cerebral circulation, while the strychnin operates similarly on the respiration through the cord. A number of testimonies to the effectual action of this treatment from army officers and surgeons are given in the paper. Girard does not claim absolute originality for this method, which he first published in 1888, but believes that its publication with the evidence from others here given will establish its value.

Patent Medicines.—To the query, what is a safe rule about taking "Patent Medicine?" the *Ladies' Home Journal* answers: There are two rules, (a) Don't take them at all; or (b) never take a "Patent Medicine" except upon your physician's prescription. In the first instance you

are absolutely safe; in the second you are reasonably safe.

White Plague in Platform.—In the platform of the republican party of Pennsylvania the appropriation of several million dollars is contemplated to further the work undertaken by Dr. L. F. Flick. The section alluded to reads as follows: "Modern science has demonstrated that consumption is a curable disease and that this great scourge of the human race, at once so communicable and deadly, may, by resorting to proper treatment and by education in the laws of health, be almost wiped out as the terror of mankind. It is the duty of the state to do its part toward this beneficent end, and we hereby commit the republican party to the establishment and support of dispensaries, hospitals and sanitariums for the treatment of the consumptive poor."

The **Banana Products** Company is endeavoring to establish a coffee, breakfast foods, flour, and other banana products plant in Seattle. It is said that the banana contains more nutriment than wheat or any other food article. Flour is made from it in Mexico, and it is planned to make paper in the United States from banana leaves, as experiments to that end are said to have been successful.

Shelter Tents in Favor.—There is a probability of the Austrian military authorities encouraging the manufacture or importation of shelter tents, as used in Japan during the late war. The tent consists of a waterproof sheet with hooks and eyelets, the weight being trifling. Each Japanese soldier carries one of these sheets in his kit, and any number of them can be laced together, the custom being for four men to form a bivouac. Arms are piled in the usual way, and the sheets are spread over the piled weapons, affording shelter from both heat and rain. They can be utilized in many ways for sheltering the soldiers.

"Dr." White's "Magic Egyptian Breastplates" were shown to contain plumbago, sulphur, lead oxide and ochre, the stuff having no electrical value. This was brought out in the United States District Court in Baltimore, where "Dr." White is on trial on a charge of using the mails in furtherance of a scheme to defraud. Although "Dr." White's advertisement declared that the breastplates were "highly magnetized," a chemist testified that the powder is incapable of being magnetized.

Tuberculosis Prevention in Syracuse. The Associated Charities of Syracuse, N. Y., has appointed a tuberculosis committee to co-operate with the free dispensary in treating consumptives at their homes. It is planned to provide tents when necessary for patients who should sleep out of doors.

Mercury Tannate. If the stomach can stand no other form of mercury, try the mercury tannate. Give it in pills or granules 1/6 to 1/2 grain, three to six times a day. It is one of the least irritating compounds of mercury. W. J. Robinson, American Journal of Clinical Medicine.

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ORIGINAL ARTICLES

PURPURA*

BY W. H. NEILSON, M. D.

MILWAUKEE.

Purpura is a disease little understood, notwithstanding there has been much written concerning it. In the attempt to classify its various manifestations, giving to each of their groups a name more or less descriptive, and ascribing to each the dignity of a distinct disease, a great deal of confusion has arisen. Thus there have come into our nomenclature such terms as purpura simplex, purpura hemorrhagica, purpura urticans, Henoch's purpura, purpura rheumatica, Schoenlein's purpura, peliosis rheumatica, all more or less descriptive, all more or less indefinite, and each utterly failing to give an adequate conception of the disease. The attempt has of late years been made to classify it according to the etiology, but here again we grope darkly, for the most careful observers have failed to settle upon any one constant factor having an etiological bearing. After all that has been said and done we are obliged to fall back upon the somewhat unsatisfactory definition that purpura is an expression of the hemorrhagic diathesis, manifesting itself by hemorrhages of varying extent into the skin, the mucous and serous membranes, and the parenchyma of the deeper structures, accompanied by general symptoms of more or less gravity and of whose etiology we are for the most part ignorant. For convenience, however, it is well to make the general classification of primary purpura and secondary purpura. To the former belong those cases, and they form a large percentage, in

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which the purpura is not a complication; to the latter, all those cases in which it occurs as a complication or is secondary to some infectious disease, as scarlet fever, typhoid fever, typhus, smallpox, measles, erysipelas, endocarditis (septic), and all other septic conditions. In addition to this we have mechanical purpura, the result of straining or obstruction to the circulation, and the drug purpurae, which are of considerable interest but will not be discussed here.

For convenience the primary purpurae are divided into the mildest form, purpura simplex, purpura hemorrhagic, purpura rheumatica, purpura urticans, Henoch's purpura, and purpura fulminans. While these names would indicate diseases greatly different, there is in fact, a difference only in degree, dependent upon the intensity of the infection. These various forms run into each other, their symptoms blend and in one individual it is possible to have symptoms common to several of the varieties. If we can divest our minds of the idea that these various manifestations constitute the sign of a distinct disease and accept the idea that they are all but the manifestations of the same underlying causes, our conception of purpura becomes much more simple.

Of late the omnipresent bacterium is strongly suspected of being a very prominent factor in the production of the disease, but as yet we have to be contented with the Scotch verdict, "Guilty but not proven". The evidence, however, that microörganisms play a large part in the development of purpura, is increasing and for the most part quite convincing. In the secondary purpurae it is quite easy to demonstrate microörganisms at the point of the dichotmous branching of the capillaries, in the thrombotic plugs surrounded by the effused blood, as well as in those connected with septic conditions, as septic endocarditis, septic joints, phlebitis, etc., where the plugs filled with bacteria are embolic in character. Changes are thus induced in the affected vessel walls in their structure and likely in their innervation, which permit the escape of blood either by diapedesis or rhexis. Bacilli were found by Klebs, Ceci, Reher, Demme Vessale, Gendre, Ginnard, Simon Legrain, Jones, Tizzoni, Giovannini, Kolb—Petrone, Babes and Letzerich. Hanot and Luzet, Widal and Thérése found streptococci.

In purpura of newborn, staphylococcus pyogenes aureus, bacillus pyocyaneus, also bacillus lactis aerogenes, are found, and after fright which was followed by a fatal case, Labreton found staphylococci albi and aurei. In this the purpuric spots were large and confluent. Labreton and M. Litten found staphylococci, while negative findings are mentioned by Marfan, Legendre, Demys and

others. Thus we see that even in septic cases microörganisms are not always found, and that, even in these, we are forced to the conclusion that other factors are to be reckoned with. This is notably so in scarlet fever, cholera, plague, yellow fever, anthrax, snake bite and typhus, and we have reason to suspect zymotic bodies, ptomains, and toxins. Ajello, from the fact that he demonstrated in the spectrum of the blood of purpuric patients, methemoglobin, concluded that autointoxication from the intestinal tract could be considered as a cause.

Schwab concluded that toxins are always to be considered, and Bateman and Grissoli believe certain forms to be contagious and infectious.

Coming now to the primary purpurae, Petrone maintains that purpura hemorrhagica is due to bacilli, and Letzerich confirms this view, maintaining that his experiments prove their correctness.

In 1884 Letzerich found small, round, glistening bodies in the blood of purpuric patients. These proved to be spores which, under proper conditions, developed into bacilli, capable of producing purpura hemorrhagica in rabbits, even to three or four generations. These bacilli were found in great numbers in the blood, spleen and liver, which latter was greatly enlarged. In humans suffering from this disease, the liver is also frequently enlarged. He found in the capillaries marked accumulations of erythrocytes and stasis due to their presence, and in dichotomously branching smallest vessels, hyalin plugs due to the action of bacterial poison in the blood.

His conclusion was that purpura hemorrhagica is a chronic infectious disease. Very good reason he had for this, for soon after the conclusion of the experiment, he developed the disease himself and was not free of it for many months, developing with the purpura a large liver similar to those noted in his experiments. With cultures, even from his third relapse, he was able to produce the disease in rabbits, and the bacilli were easily recognized by the simple stain, methylene violet.

Lockwood's experiments confirmed those of Letzerich. The ptomain produced by the bacteria is feebly active and corresponds to the slight afternoon rise of temperature.

In connection with these bacterial findings, experiments initiated by Armin Koehler, at Dorpat, and followed out by Silbermann with blood rich in fibrin ferment, are interesting and are a help in the elucidation of the bacterial origin of purpura.

By infusion of blood rich in fibrin ferment he was able to produce in dogs a condition very similar to Henoch's purpura, but with the

hemorrhages principally confined to the deeper structures. Owing to the rapid death of the animals experimented upon by Koehler, Silbermann sought a method to overcome this untoward result and also to produce a more even distribution of the spots. To do this, he gave the animals small doses of pyrogallic acid. By this method he succeeded in slowing the blood current, producing a moderate amount of stasis. Following this with a moderate amount of ferment, he was successful in producing a very evenly distributed purpura. This phenomenon is due to the property of the acid, in small doses, of slightly damaging the blood, thus slowing the capillary current and increasing the tension, a condition favoring the action of the fibrin ferment, enabling it to produce thrombosis followed by hyalinic changes in the implicated vessels, changes favorable to the production of purpura.

In infected blood we have similar conditions to those brought about by the experiments of Silbermann. We have poisons circulating in the blood which can and do produce a slowing of its current and we have a more or less pronounced leucocytosis. The constantly dying leucocytes produce prothrombins, which, combining with the calcium salts circulating in the blood, produce thrombin or fibrin ferment. This acting upon the fibrin again forms clot. Thus we have in infected blood all of the elements for thrombus, viz: dyscrasic blood and blood more or less rich in fibrin ferment. The clot of purpuric blood contracts but feebly or not at all and this may account for the difficulty of controlling the hemorrhage in severe cases of purpura hemorrhagica.

Silbermann in his examinations could not discover ruptures in the vasuclar wall. He therefore concluded that hemorrhage is by diapedesis as a result of distention and that the changes in the vascular wall and the extravasations are the consequence, not the cause, of the circulatory disturbance. He believes that the stasis so damages the vessel wall as to make it permeable and possibly to give rise to fatty degeneration and necrosis. In view of his experiments he pertinently asks, "If dyscrasic blood in animals can produce such results, can we not expect the same from dyscrasic blood in humans?" His answer is in the affirmative, substantiating his affirmation by postmortem findings.

While Silbermann believes that the vessel changes are secondary to those in the blood, Riehl and V. Kogerer contend that the primary changes are in the blood vessels, the thrombosis secondary, and that the thrombi are the direct cause of the hemorrhage.

Leloir differs from the others in that he believes all cases to be embolic, a belief hardly tenable, and in which he stands practically alone.

V. Kogerer's scheme of the pathologic events is as follows: (a) vascular disease, (b) thrombosis, (c) extravasation of blood, (d) pigmentation. Silbermann's scheme differs from this only in the transposition of the first two events, leading the list with thrombosis.

Leloir, Riehl and v. Recklinghausen found thickening and hyaline degeneration of the vessels, and believed that this condition is a cause of purpura, a belief hardly compatible with the rapid spread of the spots and their disappearance and reappearance.

Favoring conditions for the production of purpura are: wasting disease, infections, poor or insufficient food, bad hygiene, and occasionally great fright or other strong emotion.

Notwithstanding, whatever view we may take of the etiology of the disease, we are brought back to certain definite blood changes: (1) Absence of contraction of clot in severe cases, feeble contraction in milder ones. (2) (a) Bone marrow cells are always present as shown by many nucleated blood cells in acute forms, (b) usually neutrophylic myelocytes, sometimes eosinophylic, also lymphocytes are present. (3) Changes in the blood platelets which are fewer in number, increased in size and have lost their characteristic grouping. There is also loss of clumping which explains the failure of the clot to contract, and anemia.

Inconstant blood changes: (1) Leucocytosis with increase of the polynuclear eosinophiles and lymphocytes. (2) Appearance in the blood of a fine or coarse reticulum. (3) Number of red cells may be increased and yet the hemoglobin value be diminished.

It would seem that these manifold changes in the blood alone, indicate an infection, and this, with the anemia, is sufficent to account for the various manifestations and, we can say in a general way, the disease is caused by an anemia and an infection and that all the apparently different forms depend upon an acquired diathesis which tends to hemorrhage and which, as Litten says, "Is in all probability due to a microparasitic, pathogenic agent yet unknown." Its expression is in forms clinically different but which merge into each other in many ways. We can also say that the intensity of their expression varies according to the intensity of the infection. In acute forms the blood undergoes great disorganization, while in the chronic form the changes are not so marked.

What are the expressions? They vary in cases from no prodromes and a few purpuric spots like flea bites, to malaise, rise of temperature,

general prostration, pain, large suggillations which coalesce even to the covering of the limbs, profuse hemorrhages and fatal issue. While we make artificial divisions there are no hard and fast lines to bind us, for in any one case we may have all of the manifestations, even the arthritic. This would indicate common underlying cause or causes.

We will not at this time attempt to describe with any degree of minuteness the various symptoms of purpura, but will outline a few cases which show the intimate relation with toxemia purpura has.

The first is one of purpura hemorrhagica associated with intermittent fever, great prostration, profuse hemorrhages, diffuse maculation, great anemia, recovery.

The second appearing during convalescence from typhoid fever. Macules profuse, mucous hemorrhages, hematuria, melena, profound prostration, very prolonged convalescence.

The third: infected gall bladder, enlarged liver, deep jaundice, profuse hemorrhage from all the mucous surfaces, large purpuric spots, fatal issue in one week.

The fourth: associated with chronic Bright's disease and probably due to the uremia which manifested itself by intense headache, rise of temperature and death; moderate sized ecchymoses resembling bruises, distributed over the limbs and body.

The fifth: a case of Henoch's purpura, mild in form, in a child in whose family the rheumatic diathesis was marked, shows another phase. In this there was abdominal pain, vomiting and a general distribution of macules, without, however, mucous hemorrhage; recovery.

To illustrate the mechanical form and perhaps showing the influence of the nervous system, is the case of an exceedingly fleshy woman who was also very dropsical and who had hallucinations of suspicion. In her case these were suggillations distributed over the chest and shoulders which she believed were caused by some one who had entered her room at night and beaten her.

Then there are the numerous cases of erythema nodosum with joint pains, rise of temperature, perhaps a simulated pleurisy followed by the painful elevated purpuric eruption. Two such have come under my observation lately.

A few cases there are of purpura fulminans which run to a fatal issue in twenty-four hours and in which the purpuric spots are large and coalescent. Kolb claims to have found a special bacillus in these cases. It is found especially in the kidneys, spleen and vessels, and is

a facultative aerobe. Simulating purpura fulminans are cases seen in scarlet fever and smallpox. Two such cases I have seen and their course was rapidly fatal. In smallpox the eruption appears late and is scanty, rendering diagnosis very difficult.

Dr. Phillip Schmitt, Milwaukee, reports a case of purpura hemorrhagica in which there was gangrene and sloughing of the end of the tongue, and another of death from this disease. Kaposi reports sloughing of the palate. The records of the London Hospital show that purpura embraces but 3-10 of all cases and about 34 per cent. of these were where the etiological factor was undetermined. Thus we see purpura assuming many forms and attended with a variety of symptoms, but if we keep in mind that it, with its attendant symptoms, is but an expression of blood dyscrasia our study of the disease is much simplified. Further, if we consider the dyscrasia due to an intoxication, impoverishment and infection we are carried a long way from the mazes of speculation and are placed in a fair position to institute rational treatment. The prognosis of primary purpura is, as a rule, good but when occurring during the course of an infectious disease its gravity is greatly enhanced. The demoralization of the blood which it implies makes a poor defense against the inroads of the infection. In diabetes and tuberculosis it indicates a serious condition, while in Bright's disease it is not always of serious import.

The treatment consists in paying such attention to hygiene and diet as will best tend to the comfort of the patient, together with such remedies as are calculated to restore the condition of the blood and combat infection. The patient should be placed in bed in a light, cool room, his bed carefully made so as to avoid wrinkles, all forms of excitement should be avoided, and a nutritious, easily assimilated diet provided. Of drugs, the ones giving me the most satisfaction for obvious reasons, are the tincture of the chloride of iron and protonuclein, while the primary disease, if there is a complication, receives its particular treatment. If there be hemorrhage of the mucous surfaces oleum terebinthinum is very satisfactory, and aromatic sulphuric acid is deservedly popular; chloride of calcium is given with the hope of increasing the coagulability of the blood, and patients have been fed gelatine with the same end in view. Of the newer preparations, adrenalin is perhaps the most efficacious, especially locally in nasal hemorrhage. When the joints are implicated we should not consider the case one of rheumatism, unless very rarely, and then there is always the profuse sweating significant of rheumatism to guide us; but remember that joint involvement is characteristic of the hemorrhagic

diathesis and as such requires little local treatment except support to the joints and perhaps some soothing application. We want to remember, too, that no matter how successful our treatment apparently is, there is always a liability to return and that abnormal blood change is present for months after the symptoms have subsided.

According to our present knowledge, then, (1) Purpura has been proven to be of infectious origin, in many cases, while in a considerable percentage infection is under strong suspicion; a few cases seem to depend upon autointoxication from the intestinal tract but further investigation may place them in the first class, and in all there is from some cause, depraved condition of the blood supply. (2) While for convenience we classify purpurae according to their prominent symptoms this classification is not based on etiology, the only rational method of classification. (3) That the etiologic factors may produce all variations of purpura, the differences depending upon the intensity of the infection and the condition of the blood. (4) That treatment to be rational must be based upon the etiology and pathology, in so far as it is known.

In the preparation of this paper I am much indebted to the work of M. Litten, William Thomas Corlett and Stephen McKenzie. I also wish to thank the Health Department of this city as well as Dr. Phillip Schmitt for data and record of cases.

Discussion.

Dr. G. H. FELLMAN of Milwaukee:—The writer of the paper has touched on the point that this disease is due to myelogenic changes and not to bacterial changes in the blood; and the fact that it is not due to bacterial changes is shown, he states, for the reason that it occurs in so many conditions in which we do not find special bacteria in the blood, though we do find streptococcus and staphylococcus, and also cases where there is a marked diminution in the red blood cells. Birch states that in fatal cases the red blood cells are reduced from 1,680,000 to 310.000 within three days, showing the marked changes taking place in the blood.

Personally, my view is this, viz. that there are so many different causations of purpura, these causes must all act practically in one direction. When drugs are the cause, they must act on the blood vessels in a certain way, so that an extravasation of the blood takes place. The same is true in those cases in which we have intestinal symptoms which are due to intestinal toxemia and not to bacterial changes in the blood; consequently all these diseases are really a manifestation of the idiosyncrasy of the individual to the toxin, whether bacterial or due to cachectic states. That is the view I hold in regard to this disease.

DR. J. A. PURTELL of Milwaukee:—I shall limit my remarks chiefly to the treatment of the disease. In view of the conflicting theories regarding the etiology and the uncharacteristic pathological findings, the treatment is

not on a very scientific basis. Many remedies have been put forth on purely theoretical grounds with the assumption that possibly they may do good; a great many are of value and a number of them are absolutely worthless. In the purpura simplex we aim to improve the patient's general health, his surroundings, the hygienic conditions, and restoration of the blood to a normal condition. We may give the mineral acids, dilute hydrochloric and aromatic sulphuric acid. High enteroclysis may prove beneficial, and hemorrhage from the bowel does not contraindicate a low injection. Calcium chloride in 10 to 20 grain doses 4 times a day for 3 or 4 days has been used quite successfully in a number of cases. Stypticin, 3 to 5 drop doses of a 10 per cent solution, given every hour, has often acted promptly.

So too has gelatine—a 2 per cent. solution has been used internally, locally and subcutaneously. It might be well to call your attention to the danger of using an impure gelatine solution, where there is an affected kidney. Suprarenal extract has been used with happy results in a few cases. It might be well to call your attention here to the necessity of giving small doses of suprarenal extract, from the fact that the action is not constant. A few observers claim that the use of suprarenal extract in septic conditions seemed to make matters worse. I do not know that this has been proven, but it is well to call it to your attention.

In the graver forms, the same conditions are to be observed—improvement of the health, sustaining your patient. If we assume that the disease is due to toxins or to bacteria, then it becomes all the more necessary for us to sustain the patient and using those drugs that I have already mentioned for the control of the hemorrhagic condition. Flexner in some of his experiments with snake poison has found a substance which he calls hemorrhagin which produces a solution of the endothelial lining of the blood vessels. Reasoning from analogy, if this disease is due to bacteria or their products circulating in the blood, may we not assume that possibly there is a solution of the endothelial cells, or that these toxins have a direct effect upon the blood vessels? If that were true perhaps a serum therapy might be advocated. So far as I know there has been nothing attempted in that line, with the possible exception of the use of the antistreptococcus serum; but perhaps a maceration of the fresh blood vessels and their enzymes, if stable, may prove of value in these cases. That is merely a suggestion.

DR. L. SCHILLER of Milwaukee:—The subject of purpura is a vast one, and it is associated with so many different diseases, both infectious and constitutional, in so far as those certain changes in the blood or in the blood vessels, whichever it may be, are the result of a disease-process which originates either in the body *de novo*, an autogenetic intoxication as it were, or may follow secondarily an already existing disease, the resulting condition of the blood or of the blood vessels, whichever it may be, being simply a symptom following upon conditions which have gone before. Consequently the term purpura can only be applied distinctively to that form of hemorrhage either in the skin, or if more extensive, also from the mucous membranes and into the serous cavities. Consequently this term can only be applied to such conditions as morbus maculosus Werlhoffii and to cases of purpura or peliosis rheumatica, which is nothing more nor less than a subvariety of erythema exudativum multiforme, which is in some way allied to rheu-

matism, and which is due to some toxin circulating in the blood; as a result of this toxin these various changes take place. It is very likely that those idiopathic or autogenetic forms, the morbus maculosus Werlhoffii, and those of a quasi-rheumatic nature, are due to toxic agents produced by certain bacteria which we have not as yet discovered. In other words, I maintain, that outside of these all other forms are to be considered as a symptom—or as an end-symptom rather—of certain diseases, which owing to the serious nature of the toxic condition, result in this dissolution of the blood or changes in the walls of the blood vessels.

DR. NEILSON (closing):—I have nothing further to say in regard to the paper, except that Morbus Maculosus Werlhoffii oftentimes exhibits conditions that simulate rheumatism very closely; but let us remember always that in rheumatism we have the characteristic profuse sweating which is absent in the joint complication of this disease, and it would be very wrong for us to attempt to treat that as a rheumatism. I agree with the last speaker that "purpura" should be restricted to those cases which are usually denominated "primary purpura." The secondary purpurae are simply expressions of a disease which antedates the eruption.

I should like also to say a word in regard to the treatment of the disease. There are certain conditions arising which require a great deal of work on our part, and oftentimes that is unsuccessful. In Henoch's purpura the vomiting is frequently very severe and resists treatment absolutely, and the patient is not relieved until there is a black discharge from the bowels. Before that time our treatment is unavailing. In hemorrhagic purpura the gentleman spoke of many things that are of very excellent repute. I do not know that he spoke of the oil of turpentine which in these cases is of very marked benefit; the old reliable remedy, however, is sulphuric acid. I do not know whether or not adrenalin is going to supercede the aromatic sulphuric acid, which has been used for many years.

APOPLEXY, ITS DIAGNOSIS AND TREATMENT.*

BY U. O. B. WINGATE, M. D.

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MILWAUKEE.

Were I to offer an apology for presenting this subject at this time I would do so for the following reasons: First, apoplexy is a common disease, and one of the greatest importance from the standpoint of both prevention and treatment, and yet, while much information has been gained of late years concerning its pathology and diagnosis, but

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little attention has been given to the subject, especially in this vicinity. Second, our vital statistics are very incomplete; the records of the Health Department of the city of Milwaukee are no doubt the most accurate of any in the state, but we have no means of knowing from these records how many cases of death occur from hemorrhage in or upon the brain, whether from traumatic or other causes, nor have we any information concerning the number that result from thrombosis or embolism. "Cerebral congestion and hemorrhage," also "paralysis" are the heads under which cases of apoplexy may be recorded, and until physicians make their returns more complete our statistics must be of little or no value in studying this condition. Diseases of the vascular system are of primary importance, and are receiving more attention than ever before, and the prevalence of this disease together with its character and the conditions under which it occurs in modern life should stimulate our most earnest and careful investigation for no doubt our greatest work can be accomplished along the lines of prevention, although there is much to be learned relating to the early treatment of individual cases, and under these conditions accurate statistics become absolutely necessary.

Briefly speaking, the term cerebral apoplexy applies to one of three conditions: First, a sudden hemorrhage into or upon the brain resulting from the rupture of a blood vessel; second, cerebral thrombosis; third, cerebral embolism.

The investigations of recent years concerning cerebral localization have added much to our knowledge in diagnosis, and the diagnosis of the location and character of the lesion in the brain is of very great importance as a basis for intelligent treatment. An attack of apoplexy may be mistaken for a number of conditions, the more common being an epileptic attack, syncope, the various comas, as from opium, alcoholic and uremic poisoning, diabetic coma, etc., but the most important of all is the differentiation between cerebral hemorrhage and thrombosis or embolism; this is often difficult, and according to most authorities in many cases may be inpossible.

In an epileptic attack there is usually the aura, the sharp cry at the onset, the bitten tongue, the convulsions, first tonic then clonic, the youth of the patient, equal dilatation of the pupils, absence of slow respiration and of a puffing out of one cheek on expiration, and when the patient recovers consciousness the absence of evidence of brain lesion. Usually the history can be obtained which will decide the matter.

In syncope the general appearance of the patient is often sufficient for one to render a correct diagnosis: there is marked pallor of the

face, weak respiration, temporary stoppage of the heart's action, dilatation of the pupils, knee jerks preserved, rapid recovery and absence of coma and of local symptoms of a brain lesion, the most important being the absence of hemiplegia.

Apoplexy has often been mistaken for alcoholic intoxication, and vice versa, but usually a drunken person can be aroused sufficiently to give some evidence of the true condition. The odor of the breath may be misleading, for a person may have taken a sufficient amount of alcohol to be detected in the breath and at the same time be suffering from apoplexy. The general appearance of the patient will often aid one in recognizing the alcoholic state, the bloated face, dirty condition, "maudlin resistance," and absence of paralysis which can usually be made out. In a drunken person the reflexes are usually preserved, but it should always be remembered that a person suffering from alcoholic intoxication may also be suffering from apoplexy, hence a careful observation must be made for any evidence of brain pressure, inequality of the pupils and unilateral paralysis. The presence of coma calls for a very careful investigation; in that from opium poisoning there is very slow respiration, very small pupils, rapid pulse, cool skin, coma not as deep as in apoplexy, and there is absence of symptoms of unilateral paralysis. In cases of uremic coma, if the history is not at hand, there may be some difficulty in recognizing the true condition; the presence of edema of the face and tibiae is important; if a specimen of urine can be obtained it may be of assistance in acute nephritis, but it should be remembered that apoplexy is quite a common complication in chronic cirrhotic kidney, it may be necessary to wait for some hours and watch for any symptoms of paralysis before making a positive diagnosis; the absence of any unilateral paralysis, difference in reflex actions, or absence of any disturbance in speech will usually exclude apoplexy. In cases of diabetic coma the amount of sugar in the urine, if present, is usually much larger than in apoplexy; the history is important, for diabetic coma is not of sudden onset, it is usually preceded by headache, distress, sensations of suffocation and somnolence. We should also bear in mind that diabetic patients may be attacked with apoplexy and the two conditions may exist at the same time.

Apoplexy may usher in or be the first symptom of general paresis, and it may also occur at any time during the course of that disease; under such conditions the attack is usually in the form of a hemorrhage in the meninges, and produces symptoms identical with those of a cortical cerebral hemorrhage at the onset.

The differential diagnosis between cerebral hemorrhage and cere-

bral thrombosis or embolism, if the characteristic symptoms of each be present, is not difficult, but in many cases such symptoms are wanting and the diagnosis becomes difficult if not impossible.

It is well to bear in mind that thrombosis is probably much more common than hemorrhage or embolism, though authorities differ in this regard. It is also well to remember that a correct diagnosis of embolism is rarely made during life.

In attempting to establish a correct diagnosis it is important to keep in mind the pathology and many of the etiological factors; the most frequent condition that leads to apoplexy is a chronic endarteritis—a chronic inflammatory process in the intima and muscular coats of the vessels, the causes of which named in their order are syphilis, abuse of alcohol, autointoxication resulting from imperfect nutrition, or indigestion due to an excess of food and insufficient exercise, gout, nephritis, chronic poisoning as from lead, and old age. This inflammatory process produces a new cellular tissue which may increase until it occludes the lumen of the artery producing thrombosis, or it may undergo calcareous degeneration, roughening the wall of the vessel and inducing deposits of fibrin which may occlude or partly occlude the vessel and produce thrombosis, or these deposits may be washed onward producing embolism, or this new tissue may undergo fatty degeneration, thus eroding the intima and weakening the muscular coat and producing aneurisms, either miliary or large, which rupture and produce cerebral hemorrhage.

Most authorities believe the miliary aneurisms are due to endarteritis, but some believe that they may form in senile arteries by a bulging of the normal wall and thus produce thinning of the muscular coat which finally ruptures.

A condition favorable to the development of apoplexy is distinctly hereditary and death from this cause is the rule in some families. It has been claimed that the use of tobacco, tea and coffee predisposes to the development of endarteritis, but this claim has not yet been confirmed.

Arteriosclerosis is quite frequently a favorable condition in the production of cerebral hemorrhage. The larger vessels are usually affected by sclerosis, the increased arterial pressure may cause them to rupture. More frequently, probably, the condition favors the rupture of miliary aneurisms in the smaller branches; the coats of the larger vessels being hardened they lose their elasticity and resiliency, and as a result the increased arterial pressure comes with greater force upon the smaller branches affected by miliary aneurisms and causes them to rupture. It can also be easily understood that the

condition of the arteries in arteriosclerosis may be such as to favor the formation of thrombosis or embolism.

Hemorrhage in the meninges of the brain may occur in the meshes of the pia mater, in which case it involves the cortex; it may occur in the subdural space, and between the external layer of the dura and the cranium, i. e., is the supra-dural space. It may also result from disease of the vessel walls, and from gross intra-cranial disease, but it occurs most frequently from injuries to the skull. When due to vascular disease it may occur in middle or advanced life, and may occur in connection with renal disease, but this type of hemorrhage is rare. The symptoms vary, often there is headache followed by coma and convulsions. When occurring in the arachnoid space, in degenerative states as, for instance, in chronic insanity, the hemorrhage may result in hematoma of the dura, and this condition is rarely recognized during life; I have seen but one case, which occured in an insane woman who had repeated apoplectiform attacks from which there was a partial recovery, death finally resulting. In some cases a small hemorrhage may occur suddenly on the inner surface of the dura; this occurs in plethoric individuals and the symptoms are violent so as to demand very early and prompt treatment. The attack usually occurs just after a full meal, or while straining at stool, or during any severe strain; there is agonizing pain in the head, often so severe that the patient becomes pale and much distressed, vomiting may occur, and there may be sudden and repeated movements of the bowels; there also may be evidence of much irritation of the meninges, such as contraction of the pupils, photophobia and sensitiveness to noise. The pain may occur in paroxysms and radiate down the neck and back, the symptoms may strongly suggest meningitis, but as they occur after a hearty meal, or with a strain, and suddenly in plethoric persons, the diagnosis is not difficult. Localizing symptoms as well as somnolence or coma may be wanting.

The traumatic type of meningeal hemorrhage is quite frequent, following fractures of the skull; it may occur, however, where blows on the head have been sustained without fracture, or in cases where the fracture is very small. An injury to the middle meningeal artery is the most common condition, and one of the branches is more likely to be injured than the main artery. A subdural hemorrhage may be so sudden and complicated by concussion that attempts at localization of the extravasation may be quite futile. Usually, however, the diagnostic points can be made out: first is the interval of consciousness which precedes the somnolence and coma, this may vary from a few

minutes to several hours; the patient may appear quite well for some time after the receipt of the injury, then develop coma; the second point of importance is the development of a hemiplegia on the side opposite the location of the injury, also a dilated pupil on the injured side is important.

A slow pulse, labored respiration, vomiting, rigidity of the lower limbs with twitching of the muscles, and possibly a rise of temperature indicates a sub-dural hemorrhage. Aphasia may be present in cases where the speech center is involved. There may or may not be external evidence of injury.

We know that certain arteries of the brain are more liable to the formation of miliary aneurisms than others; according to Durand-Fardel seventy-five per cent. of the cases are found in the lenticulo-striate and the lenticulo-thalamic branches; these are fairly large branches of the middle cerebral artery, and being located almost in a vertical line above the heart the blood rushes in from the internal carotid artery under high pressure; they are terminal vessels with no collateral circulation and have been termed by Charcot "the hemorrhagic arteries of the brain." A clot resulting from the rupture of one of these branches destroys the lenticular or striate nucleus, or optic thalamus and the internal capsule which lies adjacent to them, or if the clot forms higher up and nearer the terminal branches it lies in the centrum ovale, and in either case if the hemorrhage be large it is liable to break through into the ventricle. It is claimed that about twenty per cent. of cases of hemorrhage break through into the ventricles, or occur originally from ventricular blood vessels. The Sylvian artery and its branches are liable to miliary aneurisms as they lie upon the brain surface and not in the brain, hence they have but little support. A few cases of hemorrhage occur in the brain axis, but the cerebellum is most rarely involved. When a hemorrhage is subcortical it tears the substance of the brain, and this torn surface never unites but undergoes a secondary fatty degeneration almost at once. Such a degeneration may be quite extensive, passing downward along the crossed pyramidal tracts in the spinal cord, or upward to the cortex of the brain. This same degeneration may occur in cases of thrombosis or embolism where softening has occurred. If a clot be very small it may be absorbed, and the fatty degeneration may become liquified and in part absorbed. There often remains, however, a mass of softened tissue mingled with blood which after a time becomes organized by the formation of connective tissue in and about it, and this firm mass of connective tissue enclosing the softened mass

may grow, and as the softened mass within this wall becomes liquified the final result is a cyst filled with fluid either bloody or clear and serous.

At the time the clot forms, and some time after, it exerts more or less pressure upon the brain tissue, sufficient to suspend function, and may be sufficient to set up a degenerative process. As soon as the pressure is removed the part of the brain involved will resume its functions to some extent at least; for this reason the first symptoms are more extensive than later ones. In some cases of hemorrhage considerable relief from the initial symptoms may be expected, the pressure being removed by slow absorption of the clot; in cases of thrombosis or embolism the improvement may be much more rapid where collateral circulation may be established within a week from the onset.

A thrombus usually forms from the roughened wall, or near a constriction formed by obliterating endarteritis. An embolus usually comes from the heart in cases of valvular disease, or from some of the larger arteries. If the lumen of the vessel is only partly occluded the nutrition of the part of the brain supplied may be only slightly disturbed, but where the vessel is entirely plugged there will be at first extensive effects; if collateral circulation becomes established, as may occur, the symptoms may be more or less relieved. The permanent effects of occlusion are much more serious in the lesions of vessels at the base than in those of the branches of the cortex, as in the latter the collateral supply by anastomosing vessels is quite extensive, while in the former it is very imperfect. The clot that occludes a vessel usually extends backward to the next large branch, and in some cases a second embolus may be produced by a portion of the clot being swept off into this branch, and this may account for a second attack that sometimes occurs within twenty-four hours after the first attack. In cases where the lumen of the vessel is completely occluded, edema of the brain in the vicinity of the clot usually occurs within an hour; a thrombus may form in the internal carotid or middle cerebral artery and death occur from the extensive edema before softening takes place, and the only lesion to be found after death being the edematous state of the hemisphere.

In cases of purpura, pernicious anemia and in leucocythemia a diapedesis may occur, the blood cells coming from numerous capillaries without rupture of the walls. The blood collects about the vessels and infiltrates and compresses the brain, or the individual neurons, not producing large clots or cysts, but the edema is excessive.

As the majority of emboli come from the heart the left hemisphere

is the one most frequently involved, the ratio being five to four. If the embolus be large it is more liable to lodge in the Sylvian artery, if small it is more likely to go on up into the branches of the middle cerebral: according to reports sixty per cent. of emboli lodge in the Sylvian artery, or middle cerebral, twenty-five per cent. in the branches of the Sylvian, and the other fifteen per cent. enter some of the smaller branches of the brain axis, while softening of the cerebellum from embolism is very rare. According to statistics thrombosis occurs in the following vessels in their order; the middle cerebral or its branches, basilar, vertebral, anterior and posterior cerebral, depending upon the size and position. The pathological changes following embolism are of course the same as in thrombosis. In cases of embolism resulting from bacterial origin, as in cases of ulcerative endocarditis or pyemia, there results an acute encephalitis of a limited extent set up by the necrotic area. In addition to the fatty degeneration there occurs an infiltration with leucocytes and the production of pus containing microorganisms.

Apoplexy occurs more frequently in men than in women; some statistics show eighty males to twenty females. Infants are more often affected than youths. The form of apoplexy known as infantile cerebral palsy may occur in an infant before birth, or soon after, and is usually due to hemorrhage; in most cases it results from traumatism, as in complicated or hard labors, convulsions, etc. It is quite common during the first few years of life. The most common cause of apoplexy between twenty and forty or forty-five years of age is syphilis, and an attack of apoplexy occuring during this period is always suggestive of a specific cause. In the majority of cases it occurs in the form of thrombosis. After forty-five to fifty years of age we may expect degenerative causes to appear, and the exciting causes are many, such as severe effort, mental or physical, excessive use of alcohol, blows upon the head, straining at stool, running, severe vomiting, sudden grief or fright, fits of rage, sudden exposure to cold as by falling into the water, etc. Prodromal symptoms are always present except in cases of miliary aneurisms, embolism due to heart disease, and cases not arising from endarteritis. The most common of these symptoms are headache, insomnia, vertigo, mental symptoms such as confusion of thought, metal depression, also sensations of numbness in the extremities are common, noises in the ears, flashes before the eyes and unusual taste. Some of these symptoms may exist for months or even years before an attack of apoplexy, and never should be neglected by patient or physician, for often much can be done by proper care and

treatment, if the patient can be controlled, to prevent an attack. Headache is very common in endarteritis; it is usually a dull frontal or occipital pain and varies in intensity from hour to hour while it lasts. If the face and eyes are red and the veins distended it is due to congestion, if the face is pale, the heart weak and the patient ill-nourished it is probably due to cerebral anemia; in such cases the pain is often located in the vertex. These headaches are rarely continuous, and in specific cases the attacks are usually "quasi-periodical", and occur most frequently in the afternoon or evening, and they cease on the occurrence of any convulsive seizure or an attack of apoplexy. Vertigo is a common symptom in endarteritis and may come on after any effort, straining, lifting, excitement of any kind, and in persons with a weak heart it will often follow a hearty meal. These attacks of vertigo often alarm the patient more than any other symptom, and may first cause him to consult his physician. They may be objective or subjective, more often the latter in my experience.

Starr is authority for the statement that a person may have a severe attack of vertigo with inability to rise, accompanied by faintness and vomiting, that the attack may be due to a small thrombus or minute hemorrhage in the cerebellum, and that such an attack may pass off leaving no permanent trace, but occasionally it may be soon followed by more serious symptoms. Insomnia is a frequent condition in endarteritis and results from disturbed and abnormal circulation in the brain. In cases where there is hypertrophy of the left ventricle of the heart, or where the arteries are rigid and have lost their elasticity and their physiological contraction, a rupture with a hemorrhage and the formation of a clot are more likely to occur than a thrombosis.

In other cases there may be an obstruction to the circulation depriving the brain of blood and nutrition, and then the patient is liable to be drowsy during the day, especially after eating; he may fall asleep as soon as he retires but awakes after three or four hours of heavy sleep and cannot again go to sleep; such cases suffer from insomnia during the early morning hours. An attack of apoplexy in these cases is liable to occur during the night, and is almost always due to thrombosis.

Endarteritis due to syphilis usually produces insomnia during the first part of the night, but when the patient falls asleep he sleeps heavily, is aroused with difficulty and is often dazed for some minutes after waking. Mental symptoms are common in endarteritis, such as inability to fix the attention, defects in memory, confusion of thought, using one word when meaning another, emotional disturbances, easily

moved to tears, and marked irritability of temper; there may be a lack of self-control and perhaps a loss of the higher senses of obligation and duty, more especially in cases of pre-senility produced by inherited neurotic tendencies or acquired diseased conditions. Numbness of one arm or leg is about as common in my experience as headache. There may be tingling sensations; these sensations may last an hour or two, or for an entire day, then disappear to return again perhaps many times. Ringing in the ears, flashes of light before the eyes, bad odors or change in taste are less common prodromal symptoms, but occur occasionally. Nose-bleed may occur and may save the patient from a rupture of a cerebral vessel.

In an attack of apoplexy from hemorrhage in the adult the following conditions are usually observed; patient past forty years of age, if younger there may be a history of some violent attack such as convulsions; severe cough, etc., which has acted as an exciting cause; the person may or may not be corpulent, the belief that a short thick neck and ruddy complexion are necessary conditions to favor apoplexy is no longer entertained by most neurologists. There is no cardiac murmur nor history of syphilis, but there may be a chronic nephritis, or endarteritis, and often there is a strong pulse and perhaps a hypertrophied heart; there may be a history of apoplexy in the family, and a history of some metal excitement or physicial exertion just before the attack, but the premonitory symptoms such as vertigo, mental confusion, etc., are usually absent. The onset is usually sudden with loss of consciousness followed by deep coma from which the patient cannot be aroused, face flushed, may be cyanotic, pulse slow, full and often irregular, respiration slow, stertorous, with a puffing out of the cheek on the affected side at each expiration; eyes often turned to one side, pupils may be of different sizes and do not respond to light. Motor paralysis is present on one side affecting the arm and leg, there may be some sensory symptoms, but more often the paralysis is purely motor. The face may be involved and the mouth somewhat drawn to one side. There may be hemianesthesia or a hemianopsia, or both, but they usually pass away in the course of ten days showing that they are due to pressure. The temperature during the first day may fall to 97.5° after which it slowly rises to 102° or more, and on the paralyzed side it is usually a degree higher than on the other side. The paralyzed side may be cyanotic and slightly edematous and sweat profusely. If the lesion be on the left side in right-handed individuals aphasia is almost always present; it is usually of a mixed type, motor rather than sensory, rarely of a special type, as word-blindness or

word-deafness. The urine often contains a small amount of sugar or albumen. In the course of twenty-four hours, or perhaps two or three days, the patient may begin to recover consciousness slowly, is dazed, restless, and may complain of headache, is often dull and suffers from insomnia. If recovery takes place improvement gradually follows in all respects, but some permanent defects will always remain. Such patients are liable to attacks of pneumonia and bedsores are much more likely to follow hemorrhage than thrombosis. The knee-jerks are exaggerated, more on the paralyzed side. ankle clonus can often be obtained and the Babinski reflex is present after a few days. These reflexes may remain increased even after considerable improvement has taken place. The skin reflexes are lost on the paralyzed side, an important diagnostic sign, as in false or hysterical paralysis the skin reflexes are preserved.

In apoplexy from thrombosis the patient is usually under forty years of age, if older there will be evidence of endarteritis, the arteries hard, pulse irregular, second heart sound accentuated; there will be frequently a history of evidence of syphilis in the younger cases; there is often a history of some acute illness prior to the attack, especially of an infectious type. Prodromal symptoms are common, they may have existed for months or longer, such as headache, vertigo, numbness of the extremities, or insomnia. The urine is normal, there is no nephritis. There may have been shock or fright or a sense of weakness or faintness just prior to the attack. The onset is frequently slow, the patient may feel his paralysis coming on before he loses consciousness; in some cases, however, the onset is sudden; if the lumen of the vessel is completely occluded the onset will usually be sudden, but in the majority of cases the lumen is only partly occluded and the patient may not lose consciousness, the attack may cause the patient to fall, then in a few moments, or an hour or two, he may recover so he is able to move about, then have another attack and become paralyzed on one side. The face is pale, pulse may be normal, not full nor slow, respiration normal, pupils react to light and are equal on both sides: temperature does not fall below normal, and if coma be present it is not deep. Irritation of the body will produce automatic movements which will indicate paralysis of one-half of the body. Convulsions are rare, but there may be some twitching of the limbs. When coma is present it does not last long, and when consciousness returns, in the course of twelve or twenty-four hours, the mind will be quite clear, though excitement may follow later. Changes in the condition of the patient are common after the attack, especially in

the course of a week; these are due to compensatory collateral circulation in the brain which is liable to occur in thrombosis; a hemiplegia may change to a monoplegia, or a general aphasia may subside into a special type, or a hemianesthesia may wholly subside, a hemianopsia may pass off within ten days, but if it remains for a month it will be permanent and show that the lesion is not the result of shock or pressure, but extensive in character. If the lumen of the vessel is completely occluded softening will result with permanent symptoms, and degeneration will extend down the pyramidal tracts of the cord and the Babinski sign will be present as in cases of hemorrhage, together with increase of knee-jerks. Mental symptoms, such as defects in memory, loss of control of emotions, excitement, etc., are more common in thrombosis than in hemorrhage. In cases of thrombosis there is marked tendency to a recurrence of attacks with renewal of symptoms, and often without loss of consciousness. Attacks of Jacksonian epilepsy are quite common in thrombosis and indicate a lesion in the cortex. In a few cases of thrombosis located on the left side of the brain in righthanded persons, aphasia is the only symptom after the onset, and these cases may completely recover; I observed one case quite recently, but a recurrence followed in a few weeks and the patient has not improved since.

In apoplexy resulting from embolism a correct diagnosis is not often made during life. Kleber reports twenty cases of supposed embolism where cardiac disease was present, such cases as are believed to be most likely embolic, yet at the autopsies in nine cases hemorrhage was found, and Starr who has had a very large experience states that "in few conditions are errors in diagnosis more common than in apoplexy."

Embolism usually occurs in young subjects, and there is often an audible heart murmur, or history of phlebitis, endocarditis, rheumatism or infection of some kind. There is no nephritis nor symptoms of endarteritis, the patient is usually pale, has no special appearance of apoplexy, and the attack occurs without premonition. The pulse is such as we might expect with the condition of the heart present, not full nor slow; the respiration is rarely stertorous, temperature remains normal, no difference in temperature on the two sides; coma is rarely present, and when present is not deep. Many of the symptoms are the same as we observe in thrombosis. Jacksonian epilepsy is quite common, beginning in one limb and extending to others, and may be finally general. Recovery from loss of consciousness, if lost, is rapid, but often followed by active delirium that may last for some days.

Monoplegia is quite common, and improvement may be marked in all the local symptoms on the second day to be followed by a return on the third or fourth day, and then there follows a very slow improvement.

There are some symptoms which, when present, are important in aiding to define the character and location of the lesion. The condition of the eyes often gives much information: in hemorrhage the pupils are usually dilated, the one on the side of the lesion being the larger, and they fail to react to light; in thrombosis or embolism they are equal and respond to light; when the lesion is in the pons the pupils are contracted. Bilateral homonymous hemianopsia is quite common, often permanent, and when the lesion is in the visual tract beneath the cortex the visual fields are more irregular and asymmetrical in outline than when the lesion is in the cortex. Retinal hemorrhages may be observed with the ophthalmoscope and indicate a high degree of pressure in the brain, also a large clot, and they are of bad omen. The loss of visual memories termed mind-blindness or psychical blindness, when limited to the memories of written words, termed word-blindness, indicate a lesion in the cortex of the left occipital lobe and angular gyrus in righthanded persons; it is usually associated with hemianopsia. This may be the chief and only permanent sypmtom of apoplexy in some rare cases.

A loss of color vision alone, termed hemichromatopsia, in one-half of both eyes has been reported, but is very rare. In the great majority of cases of hemiplegia the paralysis is purely motor, hemianesthesia may be present at first but soon passes away after the shock has passed; if permanent blunting of sensation occurs it indicates a lesion posterior to the knee in the internal capsule, or in the optic thalamus; it is rarely or never total, as each hemisphere of the brain receives some impressions from both sides of the body. There may be a loss or impairment of one sense without impairment of others, as a loss of the sense of heat or cold, but no impairment of pain from the prick of a needle. If sensation is impaired for a month or more it indicates that the sensory centers are involved as well as the motor centers. The loss of tactile memories, termed astereognosis (the patient being blindfolded is unable to recognize familiar objects placed in the hand), indicates a lesion of the cortex in the left parietal area in righthanded individuals. A lesion in the frontal lobe produces at first less paralysis than in some other localities, and recovery at first may be more rapid, but in a day or two the hemorrhage is liable to break through into the lateral ventricle with a fatal result.

In cases where the hemiplegia is not marked and the leg is more affected than the arm, there may be hemianesthesia and perhaps hemiataxia and hemianopsia, also aphasia if the lesion is on the left side of the brain, the lesion will probably be a thrombus located in the occipital and back part of the parietal lobes.

In cases where after an attack of apoplexy has occured and all appears to be doing well for a day or two, then convulsions appear affecting chiefly the side opposite the lesion, the lesion will be in the cerebrum and the blood has burst through the cortex into the subarachnoid and arachnoid spaces. Where the hemiplegia is slight and the paralysis involves some of the eye muscles as with ptosis and contraction or dilation of the pupils, also hemianesthesia, the lesion will be in the posterior basal ganglia probably destroying the optic thalamus and part of the tubercular quadrigemina.

A hemiplegia confined principally to one arm and one leg with paralysis of the third cranial nerve on the opposite side, indicates a lesion in the crus cerebri near its junction with the pons.

A hemiplegia with paralysis of the fifth cranial nerve on the opposite side, indicates a lesion on the side of the pons near the ventral portion. A hemiplegia with paralysis of the seventh and perhaps involving the sixth and eighth cranial nerves on the opposite side, indicates a lesion at the junction of the pons and medulla.

"Ingravescent apoplexy," as described by Broadbent, Mills, Dana and others, has a special symptomatology consisting of sudden headache, vertigo, sometimes vomiting, but without loss of consciousness, and in the course of twenty-four hours or more somnolence with stupor followed by coma and death. Respiration is disturbed and there is a rise of temperature, and death occurs in from three to five days. There is a rupture of one of the branches of the external lenticular arteries and at first the hemorrhage lies in the external capsule, later it cleaves forward and backward through the white matter and finally breaks through into the lateral ventricle. The special features of this type are the absence of the loss of consciousness and the progressive character. Frequent local spasms of the Jacksonian type with disturbed consciousness, and perhaps a semi-comatose condition, indicate a hemorrhage in the cortical motor area; primary hemorrhages of this character are rare except from traumatic causes.

Hemorrhages into the pons are rare, and usually quickly fatal. They are accompanied by some hemiplegia, loss of consciousness, spasmodic jerking of the limbs, contraction of the pupils, slow respiration, and there may be some disturbance of sensation and a rise of tempera-

ture. Hemorrhage into the medulla is rare, and death follows rapidly. In addition to hemiplegia and hemianesthesia there is paralysis of the tongue and throat with disturbance of circulation and respiration. Hemorrhage into the cerebellum is not so very rare, but its diagnosis is somewhat difficult. There may or may not be hemiplegia, but loss of consciousness usually results, and the patient usually lies in a state of profound coma with stertorous respiration and contracted pupils. Vomiting is likely to occur, and the hemorrhage is likely to burst through into the fourth ventricle and cause early death

Cases of irregular types of apoplexy are not infrequent, and many are peculiar and interesting, but time and space does not admit of consideration here.

The treatment of apoplexy must be based upon an accurate diagnosis, and good judgment must be exercised from stage to stage. Judging from the large mortality we must conclude that more attention to the subject is highly desirable. For a person who has commencing endarteritis much can be done to prevent an attack of apoplexy. The same degree of care should be observed in such cases as is observed in organic heart diseases. All excesses must be avoided, the diet should be simple, rich foods, condiments, and articles containing an excess of nitrogenous matter should be avoided, meat should be allowed but once a day, also alcohol, strong tea and coffee are to be prohibited, and tobacco if used at all should be used in moderation. A free use of pure drinking water is of value, many persons take too little water, and bathing, which is often abused, should be prescribed by the medical attendant. Exercise out-of-doors is valuable, light games that cause no strain or over exertion but afford amusement are highly desirable. Patients who have had syphilis should consult their physician every year in order to prevent the development of endarteritis. Any person above fifty years of age should avoid all sudden exertion; this advice cannot be too strongly impressed upon the patient by the physician.

The treatment of an attack of apoplexy must depend upon the character and location of the lesion. In a case of hemorrhage the patient should be moved as little as possible, he should be placed in bed with the head raised higher than the body, clothing loose, he should be placed on the non-paralyzed side, this will favor the free flow of saliva which is present and thus allow free respiration; then if the side of the brain containing the clot lies next to the pillow gravitation, if it acts at all, will serve to prevent a rupture into the ventricle. The mouth should be wiped out often with some alkaline antiseptic solution, such

as Glyco-thymoline, or the Antiseptic Solution of the U. S. P., one part to two or three of water. This will prevent coughing or choking and free the mouth of saliva, which has a tendency to retard free respiration, which, in turn, with carbonic acid poisoning resulting from the imperfect respiration, favors bleeding; moreover, imperfect respiration may cause a full bounding pulse, and this should be guarded against. Pure air is also important. A teaspoonful of mustard mixed with two of vaseline and applied to the pit of the stomach will prevent vomiting, also mustard prepared in the same way may be applied to the calves of the legs and back of the neck with good results. Care should be taken to prevent blistering. *The condition of the circulation should furnish the key to our treatment.* When the pulse is full and bounding, the face red or cyanotic, temperature low and respiration labored with deep coma, from twelve to eighteen ounces of blood taken from the arm may save the patient. This must be done, however, early and when the bleeding is going on, it should not be done after a few hours from the onset. Nothing will relieve cerebral congestion better than free purgation, hence two drops of croton oil rubbed up with a little butter and placed on the back of the tongue may be of great service. A recent high authority has stated that if we are sure that the hemorrhage is going on a solution of adrenalin chlorid, 1 to 1,000, may be given by the hypodermic method in doses of from five to fifteen minims. I must take exception to this treatment, for in the first place the effect of this agent is to cause an increase of blood pressure, the very thing we wish to prevent; in the next place the use of adrenalin by the hypodermic method is far from satisfactory in many cases, and in our present state of knowledge regarding this agent it should not be used in these cases, in my judgment. Ice to the head is of doubtful value, but may be used if agreeable after consciousness has returned. If bleeding is not performed the tincture of aconite root in five drop doses (U. S. P., 1905) every fifteen minutes until the desired effect is produced may serve well. If convulsions appear they can best be controlled by chloral hydrate and sodium bromide or water should be freely given, and the bladder examined often, and the potassium bromide, twenty grains of each in milk per rectum. Pure catheter used if necessary. No attempt should be made to arouse the patient, but when consciousness returns he should be quieted by assurance that the danger is over, then small amounts of food may be given, such as a little cold milk, etc. If the patient is restless and complains of headache, small doses of chloral hydrate, five grains of sodium bromide, or both combined may be administered every half

hour until relief. If sleepless, Somnos (Mulford), may be given in tablespoonful doses and repeated in an hour if necessary.

Good nursing must be provided. A water-bed is a great comfort, and cleanliness must be maintained, bed-sores prevented by extra care such as bathing with alcohol and water, and by keeping the bed always dry and free from bread-crumbs and wrinkles in the sheets. If the patient becomes restless and the temperature rises the prognosis is grave, and conditions must be met as they arise. One of the most important measures in the treatment is to have the position of the patient changed often; this should be done by the nurse every hour if it can be done with safety, it not only gives the patient much comfort, but it helps to prevent bed-sores by relieving pressure, equalizes circulation, and still more important it serves to prevent hypostatic pneumonia, a condition so dangerous to those somewhat advanced in years who are liable to attacks of apoplexy. This change of position must be performed with intelligent care, and under the supervision of the physician at first.

If the stroke be due to a thrombus or an embolus and the face is pale, pulse weak, the patient should be placed in bed with the head as low as the body, and heart stimulants with vaso-dilators administered, such as nitroglycerin if the pulse shows a high tension, in doses of one-hundredth to one-fiftieth of a grain by the hypodermic method; the dose must be repeated often as the effect soon passes off, it is best given in whisky or brandy, and the alcoholic can be repeated as often as indicated by the mouth or rectum; also ammonia, or Hoffman's anodyne may be given with dry heat applied to the body and extremities.

Absolute rest must be enforced; if convulsions appear, chloral hydrate and the bromides per rectum may be used as in cases of hemorrhage. When the patient is conscious and can take food, mild stimulating and supporting measures are called for, such as coffee, beef-tea, hot drinks, etc. Caffein citrate, or caffein and sodium salicylate (Merck) in three grain doses every six hours may be of use. If the pulse tension be high the nitrite of sodium in two grain doses every four hours is of value; the caffein citrate and sodium nitrite may be combined if desired. If the temperature rises and symptoms of inflammation follow, then the caffein and nitrites must be discontinued and small doses of chloral and bromides given; if there be insomnia and restlessness trional in fifteen grain doses in hot malted milk, or Somnos or veronal may be administered with good results. The bowels should be kept solvent, but if symptoms of inflammation appear they must be met according to general principles of treatment;

the prognosis in such cases is grave under any form of treatment.

During the first two or three weeks in mild cases, and four or five weeks in the more severe cases, we have an acute condition to deal with, and absolute rest with good nursing and with a careful supervision of the circulation are of the greatest importance. It should always be remembered that a recurrence in this acute period is liable to occur.

At the end of the acute period if the patient shows evidence of improvement we have a hemiplegia or chronic condition to treat. The patient should not be allowed to sit up until the acute period has passed, and then only with the most intelligent care. At the end of three or four weeks, as a rule, treatment by massage of the paralyzed side daily may be begun, each treatment should last about fifteen minutes; also the faradic current with passive motion can be used with benefit. Most authorities advocate the use of potassium iodide in small doses, and if there be arteriosclerosis it will be of value given in from five to ten grain doses three times daily, omitting the third week, and perhaps the third month, but it may be continued in this way for several years if indicated. In cases with a specific history it should be given in increasing doses until three or four hundred grains or more daily have been reached; in my experience it is best given in some carbonated water. The iodo-nucleoid can be given if the potassium salt is not well tolerated, as it is much better borne by the stomach. In any case active treatment should be kept up for a year, as a rule, after that time not much benefit can be expected from any form of treatment. If contractures appear they can be best treated by warm baths, massage and manipulations. The hemianopsia if present cannot be benefited by treatment, but if the attention of the patient is not called to it he may not know of its presence. Aphasia can be benefited by education, in come cases it may be improved by general treatment, in other cases no treatment will be of any avail. The condition of athetosis that sometimes results, or the post-hemiplegic tremor, is not benefited by any form of treatment in my experience. Mental symptoms are not benefited by treatment, but often much can be done to keep the patient from excitement and from emotional strain by careful and cheerful surroundings, pleasant company and mild forms of amusement which will add much to his comfort.

In cases of meningeal hemorrhage where the diagnosis can be made, the clot may be removed by surgical means; some brilliant results have been achieved in such cases.

In cases of apoplexy where a positive diagnosis cannot be made, active treatment should not be employed, as damage to the brain may be increased; in such cases it is better to trust to rest, careful change of the position of the patient, keeping the heart and pulse in as favorable a condition as possible by administering aconite if the pulse be full and strong, if weak by giving mild stimulants, and one of the best is camphor in two grain doses dissolved in thirty minims of olive oil and given by the hypodermic method. Caffein citrate is also a valuable mild stimulant in such cases. If there be restlessness the bromides, or Somnos or veronal, or some of the mild hypnotics are indicated.

Consultations should be encouraged in all cases where there is any doubt about the character or location of a brain lesion.

Prodromal symptoms should be carefully looked for, and if early recognized and appropriate treatment administered many cases of apoplexy can be prevented, if not for all time, for many years.

Discussion.

DR. L. H. PELTON of Waupaca:—The doctor has gone over this subject very thoroughly and it seems to me superfluous to go into it more definitely than he has. Apoplexy is a very common occurrence, following a great many of our chronic diseases, in a great many people in whom there has been no suspicion of a disease of any nature, and to come to a positive diagnosis is one of the most difficult problems that confronts us, for the reason that it is impossible to make an ante mortem examination. Since we have learned so much from localization and the effects of injuries of the brain, we can pretty positively determine where the injury is, but as to what it is and the occasion of it, many times it is impossible to determine.

In regard to vital statistics, I have regretted a great many times that reports were so indefinite. There is no question but what a great many diseases have terminated abruptly from a hemorrhage of the brain, the giving way of those sensitive arteries, and it has been pronounced heart failure, or shock, or something of that nature, when an autopsy would prove otherwise; but unfortunately, in our rural districts, especially in the one where I am, it is almost impossible to obtain an autopsy, and I have regretted a great many times that our laws are not such that we are obliged to make autopsies in all cases of sudden death, for the reason that many times it involves a series of litigation extremely unpleasant to the friends, and to the doctor, and many times disastrous to an honest physician's opinion, where an autopsy would clear up the matter entirely. I have reference now more particularly to our accident insurance policies. A man may sign an application that is generally presented by an agent, and be perfectly honest in saying that he thinks he is in perfect health, when he may be suffering from atheroma, specific disease, tuberculosis, or something of that kind, where any slight accident might terminate his life. But that man is honest, and his friends have to fight, and unless there is an autopsy when he dies, it cannot be determined what was the cause of death; and even then, how many times the

agent and the representatives of many of those institutions will say: this man was diseased, and we are not liable, we are not under any obligation to pay this claim. Now, a man may think that he is in perfect health; he may have a jar, or fail to step squarely on his feet, and have a sensitive condition of the arteries of the brain, and, as a result, a hemorrhage takes place in the cortical substance, producing temporary trouble, possibly only a severe headache; but the man is not able to go on with his work. He lives perhaps a week or ten days. All of a sudden he is thoroughly and completely paralyzed, and an autopsy shows an organized clot in the cortical substance of the brain, in the corpus striatum, and the claim will be made that death is the result of disease.

I have very little to add, excepting this, that this particular example I was bringing up here showed that this man had this organized clot in the cortical substance of his brain, and that unquestionably there was a fresh hemorrhage. The autopsy showed that the 4th ventricle was nearly filled with fresh blood, which was not organized; there was no clot there, showing that the blood pressure on the brain, and the interference with the circulation, and the filling of the 4th ventricle brought about the complete paralysis and the death of the man 14 days after the primary accident.

The question was raised whether or not the company should pay the indemnity. The company refused to pay it on the result of the autopsy, for the reason that they claimed that the man was in an atheromatous condition, and therefore they were not liable; but this man, up to the day that he dropped from this slight elevation, was able to go on with his work, load his wagon, attend to his duties in a general grocery store, as well as anyone, and knew of no disease, and had not been treated for any disease for years.

I would like very much that we should have some understanding with the public, or have them educated up to the point where we could have autopsies, especially in our rural districts, to confirm our diagnosis.

DR. U. O. B. WINGATE:—I consider this a subject of great importance and regret very much that it has not elicited more discussion. There is no doubt in my mind but that a great many cases of apoplexy can be prevented, especially those that are due to thrombosis and perhaps embolism. Prodromal symptoms are usually present, and if our patients are closely observed, prior to attacks, I believe apoplexy can often be prevented, if not permanently, at least for years. I did not have time to say anything about treatment, although the paper contains reference to that matter. One point is important, and that is the consideration of the condition of the circulation as a basis for treatment. A case of thrombosis or embolism demands entirely different treatment from a case of hemorrhage; although I am sorry to say that I have seen cases of thrombosis treated as though they were cases of hemorrhage,—with weak pulse, and generally feeble condition of the system, it seems almost malpractice to bleed or give aconite; and yet it has been done.

I believe that in cases where there is a full bounding pulse, with low temperature, and we feel sure hemorrhage is going on, in early stages, bleeding—16 or 18 ounces—may save the life of the patient. But it should only be done in very early stages, when we know that the hemorrhage is going on. There are many points I would like to emphasize did time permit.

WISCONSIN MEDICAL JOURNAL.

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EDITORIAL COMMENT.

STATE LEAGUE AGAINST TUBERCULOSIS.

It is to be hoped that the movement toward the foundation of a State League for the Suppression of Tuberculosis will receive the thoughtful consideration and aid of the medical profession of Wisconsin as is the case in many eastern and middle states. The disease which has of recent years been under such earnest consideration must be reached by systematic educational efforts, and that these efforts may become the more effective some central body should exist to advise, encourage, and—when misguided—to restrain the efforts of component communities.

The National Association for the Study and Prevention of Tuberculosis, whose membership includes some of the leading scientists, statesmen and philanthropists of the country, is seeking to further the formation of state and local affiliated bodies in order that it may come into closer touch with the conditions as they exist in different sections.

Let each member of the State Society endeavor to interest the citizens of his community in the movement, and in a few years the annual tribute of 2,500 victims sacrificed to the dread bacillus in Wisconsin, will have become materially reduced. Undoubtedly this tuberculosis question will in a few years become, as already in Pennsylvania, a matter for recognition as an issue in the platforms of political parties. Its importance from an economic standpoint surely warrants society with taking a decided stand toward its eradication.

CANCER—CAN IT BE CURED?

Condemnation has fallen thick and fast upon the author of an article under the above caption in the July issue of *McClure's Magazine*. The little reason that exists for the optimistic utterances of Dr. Saleeby, readily justifies this criticism. The public deserves and has a right to expect instruction from time to time in matters of scientific interest; and likewise is it the public's privilege to be kept informed upon the progress or results of experiments that have its welfare as their object. But while honest efforts are being made to shield the public from humbugery, to prevent traffic in human credulity by promises of cure where cure is impossible or improbable, premature utterances like this one are exceedingly harmful.

Dr. Saleeby's arguments are fallacious. The grounds upon which he rears his picture of an observed case of trypsin-cured (?) cancer are wholly unjustified (from his own statements) and one must wonder how any thinking scientist could put himself upon record with such a compromising statement and premature outburst of enthusiasm. We hesitate to believe that there is a sinister motive at work. Dr. Saleeby calls attention to the cure in two white mice of cancer, by means of trypsin. Upon this is based his entire theory of the curability of the disease by this ferment. And now note this interesting fact: Gaylord, in experiments that he has conducted during the past year, found that the spontaneous disappearance of cancerous nodules in white mice occurred in about 20 per cent. of the cases under observation. Thus falls the prop that supports this highly sensational and unwarranted announcement. Inasmuch as Dr. Beard is said to have read and approved of the article before its publication, and therefore stands sponsor for it, it would seem that the burden of responsibility for its publication must be shared by him also. Then what shall we think of the scientist who permits another to say of him—"Dr. Beard is naturally far too busy with his work, for him to assume the labor of publishing his results broadcast. It is by his wish that I am undertaking this task", etc.

Two cases of cancer in the human being are cited, and in neither is there justification for the inference that a cure has resulted. And upon this evidence the author submits "to the civilized world generally the proposition that the 'trypsin' or pancreatic treatment of cancer is worthy of immediate trial in the behalf of the many persons to whom it alone offers a possible chance of escape from an otherwise inexorable fate."

Verily, even assigning the good motive that "the giving of the widest publicity to these facts seems to be a proceeding from which it would be cruel and cowardly to refrain," we would consider that greater cruelty has been practiced upon cancer sufferers by this prematurely optimistic publication, than good accomplished. We predict, furthermore, that the cancer quacks will not fail to take advantage of the endorsement of the use of trypsin by one C. W. Saleeby, M. D., F. R. S. (Edin.), and thus may incalculable harm result.

It is highly regretable that the editor of *McClure's* did not submit the article to some recognized scientist prior to its publication. Had this been done, the inexcusable error of which he is guilty would not have been committed.

MEDICAL INSPECTION OF SCHOOLS.

It is impossible to more than briefly outline the work that has been and is being done in other states, in order to bring home to the authorities the great necessity for school inspection in Wisconsin. Massachusetts, New York, Pennsylvania, most of the New England States, Illinois and Michigan have such inspection. Boston was the first city to undertake it in 1894, New York in 1897, and from these centers it has been taken up by a large number of other cities in the country with good results, being favorably received by both parents and teachers.

The features of the system may be summarized as follows:

1. The elimination from school of children suffering from contagious diseases, *viz.* the acute exanthemata.

2. Elimination of all other communicable diseases, such as tuberculosis, and infectious diseases of skin, scalp, eye and ear, etc.

3. Examination for congenital or acquired deformities of limb or trunk, such as various forms of talipes, flatfoot, spinal deformities, and visceral diseases such as lesions of heart and other organs. All defects that interfere with the child's progress at school are pointed out, and a notification of such is sent to the parents, who in turn are to inform the family physician. New York, Philadelphia and Chi-

cago authorities go even farther than this: the Boards of Education have men specially engaged to examine into the mental activity of every child, to make fatigue tests, and other psychological tests. As a result there has been a great saving of energy on the teacher's part in attempting the impossible task of educating all these classes of defectives in the same manner and along the same lines as the norm (so-called standard child of any school or district). Many of the delinquents and truants that appear in the juvenile courts have been found to possess some physical defect that in many cases interferes with their moral and mental education. These cases are studied and it is through such methods that we are really building up a more scientific and correct basis for the treatment of these children; furthermore, this work gives us tabulated results of the natural growth and development of children during school age, and a closer view of what the norm child is and how we can improve the race as a whole. If the home environment and hereditary weaknesses can be studied as well, this knowledge will explain a great deal to the painstaking physician, though such conditions are naturally overlooked by the teachers who are not trained specialists along medical lines.

The school houses also are examined as to their ventilation, heating, lighting, water supply, toilet and cloak rooms, instruments and appliances used by children or teachers, school furniture, etc. The cleaning and disinfecting of all schools—at least during the holidays —is looked into.

All these questions are still to be undertaken in Wisconsin. Milwaukee needs such inspection, and no doubt other cities would also be benefited by it.

It may be interesting to compare results obtained during the last year in other cities. In New York, from March 27, 1905, to March 30, 1906, medical inspection of schools resulted as follows: number of cases examined, 79,065; cases of bad nutrition, 4,537; anterior glands, 22,493; posterior glands, 4,989; chorea, 1,184; cardiac disease, 1,332; pulmonary disease, 885; skin disease, 1574; deformity of of spine, 674; deformity of chest, 500; deformity of extremities, 663; defective vision, 24,534; defective hearing, 1,633; defective nasal breathing, 8,974; defective teeth, 29,386; of defective palate, 936; hypertrophied tonsils, 13,411; posterior nasal growths, 7,375; defective mentality, 1,477; cases where treatment was necessary, 50,913. 29% of all had defective vision.

In Philadelphia, during the past school year ending June 30, 1906, physicians examined 90,569 children with following results. 8,722

were excluded from school until they had recovered, eliminating possible sources of contagion in school room 123,021 children were examined for defective vision, hearing or other defects that retard progress in study; 33,283 of these needed medical attention. In Philadelphia nurses were employed in 7 city schools having a total of 8,037 pupils. During the year, 1,525 of these children suffered from minor skin troubles, parasitic diseases of skin and scalp, insignificant diseases of eye and ear, bruises, cuts, etc., and were treated under a doctor's direction by the nurses; 526 who would otherwise have received no attention, were cared for by nurses at their homes; and 139 children were taken to the dispensaries—making a total of 2,193 cases in the seven schools.

In Detroit, from September 1905 to June 1906, the number of pupils examined was 26,536. Of these, 1,872 were excluded for the following causes: scarlet fever 13; diphtheria 12; tonsillitis 475; measles 85; roetheln 1, mumps 42; chicken-pox 105; whooping cough 157; pediculosis 236; ringworm 104; impetigo 326; scabies 165; other diseases 151.

These figures speak for themselves. More forceful arguments are not needed to bear witness to the excellent results of this effort at preventive medicine.

NEWS ITEMS AND PERSONALS.

Dr. J. P. McMahon of Union Grove and **Dr. H. J. Heeb** of Milwaukee leave on August 25th for an extended European trip.

Dr. Geo. T. Dawley, of New London, charged with performing a criminal operation, was discharged at the preliminary hearing held on July 31st.

Dr. N. Dodge, who has been in practice in Milwaukee for many years, recently suffered an attack of hemiplegia. His condition is satisfactory.

Dr. A. H. Little of Milwaukee has been indicted by the coroner's jury on a charge of manslaughter in connection with the death of a woman as a result of a criminal abortion.

A traveling specialist, Dr Jacobson, was arrested at Tomah and fined $50 and costs. Dr Jacobson said he was taking the place of the regular specialist, who had a state license.

Dr. W. H. Neilson of Milwaukee and **Dr. C. R. Bardeen** of Madison have been appointed delegates of the State Medical Society of Wisconsin, to the British Medical Association, meeting at Toronto, Canada, by President L. H. Pelton.

The Milwaukee Maternity Hospital and Dispensary has been organized. Its object is to eventually build a well equipped maternity institution. At present poor patients will be cared for gratis at their homes by physicians and nurses. Dr. G. A. Hipke has been elected obstetrician; additions to the staff will be made later.

Dr. John A. Rice of Merton died Aug. 19th at Lake Keesus, aged 75 years. Dr. Rice was born in Ticonderoga, New York, in 1832, studied medicine under Dr. Harris in Fleming County, Ky., and after receiving his diploma from the Western Reserve Medical College of Hudson, O., in 1851, located at Merton. He had an extensive practice, and became widely known throughout the country as an expert witness at the trial of Guiteau, the assassin of President Garfield. Dr. Rice served three terms in the state senate, and was once the nominee for lieutenant governor. He was interested in archeology and was a member of several learned societies. For some years past Dr. Rice had been living in retired life.

Michigan Supreme Court against Objectionable Advertising. The right of the state board of registration in medicine to revoke the license of a physician for causing objectionable advertising to be printed is clearly established by the supreme court in its recent decision in the case of Dr. James D. Kennedy of Detroit, against the state medical registration board. The medical board ordered Dr. Kennedy to show cause why his license should not be revoked for publishing an alleged obscene and offensive advertisement in the Detroit News. Dr. Kennedy commenced suit against the board, claiming it had prejudiced his case and that the law under which it proposed to revoke his license was unconstitutional, and praying that the board be enjoined from canceling his certificate. The injunction was denied by the court below, whose judgment was affirmed by the supreme court. In both courts it was decided that the board was not prejudiced, and the constitutionality of the medical registration act was sustained. The contention that the board in passing upon what is obscene and objectionable advertising is exercising a judicial power is said to be unfounded. It is held that if the board acts unjustly and without reason in revoking a certificate of a physician, there is nothing to prevent his obtaining adequate redress in a court.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

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NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

PROCEEDINGS OF THE COUNCIL.

MONDAY, JUNE, 27TH, 8 A. M.

The council was called to order by the chairman.

There were present Drs. Sarles, Redelings, Pritchard, Walbridge, Sears, Dodd, Holbrook, Hall and Sheldon.

On motion the following committee was appointed to examine the report of the Treasurer: Drs. Walbridge, Redelings and Sears.

The committee found the treasurer's report correct and so reported to the Council. Their report was adopted.

The matter of taking action on the question of life insurance examination fees was postponed for one year.

The treasurer's report showing that $100.00 is still owing Attorney Bennett for services in securing passage of the Medical Bill, the treasurer was authorized to draw from the treasury a sufficient amount

to make up this sum after receiving the balance from exhibits at the State Meeting from the Committee of Arrangements.

The election of officers for the council for one year resulted as follows:

Chairman—Dr. E. L. Boothby, Hammond.

Secretary—Dr. A. T. Holbrook, Milwaukee.

On motion adjourned.

FRIDAY, JUNE 29TH, 8:30 A. M.

Meeting called to order by the President.

There were present: Drs. Redelings, Sears, Windesheim, Nye, Armstrong, Pritchard, Sauerherring, Boothby, Dodd and Sheldon.

On motion it was voted that $1.20 of the dues of each member should be set apart as the subscription money for the WISCONSIN MEDICAL JOURNAL.

On motion it was voted that, at the next meeting of the State Society, the first meeting of the House of Delegates should be at 1 o'clock P. M., on Wednesday the first day of the general session.

On motion adjourned.

C. S. Sheldon, *Secretary.*

MINUTES OF THE SIXTIETH ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN, MILWAUKEE JUNE 27, 28, 29, '06.

PROCEEDINGS OF THE GENERAL SESSION.

WEDNESDAY, JUNE 27, 1906, 11 A. M.

The sixtieth annual meeting of the State Medical Society of Wisconsin was held at Conservatory Hall, Milwaukee, June 27, 28, 29, 1906.

The meeting was called to order by the president, Dr. J. R. Currens, at 11 a. m., June 27th.

After the invocation by the Rev. Everett A. Cutler of Westminister Church, the President called upon Dr. G. A. Bading, Health Commissioner of Milwaukee, who said:

LADIES AND GENTLEMEN:—It affords me great pleasure to meet you here this morning and welcome you to our beautiful city of Milwaukee. I do this on behalf of our mayor, who is unfortunately unable to be present to extend this welcome. He wishes me to tell you, however, that he is greatly pleased to have the State Medical Society of Wisconsin meet in our city. I believe it is customary on an occasion of this kind to turn over to the convention the keys of the city. Unfortunately, I am not able to do this because our boy

mayor after having unlocked the doors has lost the key. So all you have to do is to step in and enjoy yourselves to your full capacity. It is hardly necessary for me to tell you anything in particular about our city here, because you have all been here a number of times and consequently are well acquainted. There are, however, a few things to which I like to call your attention again. Those are, for instance, the beautiful parks that we have here, and I want you all to take a few moments of your time to visit these parks. Do not spend your entire time taking care of serious matters. We have a very fine public library and museum. We have amongst other things also, clean packing houses. I want you to understand and know that the packing houses of Milwaukee are the cleanest in the country; so that you can sit down without fear and call for any roast or steak in any restaurant in this city. When you walk through the town you will find one blot on the good name of our city and that is Grand Avenue. I want to say right here that Grand Avenue, or this blot on our city, is an inheritance from the former administration, and as soon as we have accumulated enough wealth to do away with this inheritance for good and all it will be done, and you will find Milwaukee not only the best governed city in the country, but also the cleanest and most healthful city in this country.

Now, all I can say is that I want you all to have a splendid time here in this city, and if you have time, come and see me at the city hall, and I will show you what the health department is doing, and make you familiar with our laboratories and our departments in connection with the health department. I thank you.

PRESIDENT: Ladies and gentlemen, I want to say this for the city of Milwaukee: We have met here a number of times and have always been well entertained, and did this society not appreciate your entertaining powers we would not come here so often. We come here today mostly not wholly as democrats, but rather on democratic tickets; but as we come here to do business as medical men also, we will not count the line of politics. Undoubtedly Milwaukee should receive great praise for what has just been done in cleaning up the packing houses, and all that, and I hope that this society will meet here a great many times at intervals in the future. We always find a good reception, we always find we can get better turnouts here and generally have a better meeting than anywhere else; and furthermore we are fully as well entertained here as we are anywhere else.

As I have nothing more to say at present we will continue with our program.

The next in order is the report of the Committee on Arrangements.

DR. A. T. HOLBROOK, Chairman of the Committee on Arrangements, spoke as follows:

MR. PRESIDENT, LADIES AND GENTLEMEN:—The arrangement committee has but little to add to what you will find announced on the program. The entire convention will be held in this building, the papers being given and held

in this hall, the House of Delegates and Council meeting in a hall on the floor above, which you will find placarded. The first meeting of the Council will be held at 12 o'clock this noon in the room on the next floor.

I am asked to urge all the members to register at the desk just outside of this hall.

The exhibits this year are notable in that we have a very complete pathologic exhibit; and I wish here to acknowledge our indebtedness to the subcommittee on pathology, and particularly to its chairman, Dr. A. W. Akerly.

The commercial exhibits we have on the floor above away from the place of meeting, and I think there will not be the usual noise and distraction from this source.

Arrangement committees are often asked why they permit these exhibitors to follow the conventions, and offer a distraction from the regular meeting; but our committee thinks that the commercial exhibits have the same place in conventions of this sort that the advertising pages have in a medical journal; and I am sure that one is not only interested but profited by a trip about the commercial exhibits.

There was some confusion about the railroad rates. We had originally arranged to have the usual fare and a third, but found that the Democratic convention coming on at this time provided a rate of one fare for the round trip. I trust it was pretty well understood through the notices we sent out.

As to the entertainments, Mr. President, you have said some pleasant things about being well entertained in Milwaukee, for which we thank you. The Society has become so large that some of the traditional features of entertainment have had to be changed.

The banquet, I think, is a thing of the past for the State Medical Society. The society is so large that the banquet is now unwieldly.

In the entertainments this year will be the usual smoker given through the generosity of the Milwaukee Medical Society. That will be held to-night at 8 o'clock in the Goldsmith building in the Society's rooms.

To-morrow night there will be a boat ride to White Fish Bay. This is given complimentary to the Society by the Milwaukee members of the State Society. This is an entertainment to which the ladies are invited, and those who do not wish to go to White Fish Bay on the boat will find that they can go very easily on the street cars, or if they desire, can drive out or go in automobiles. The boat will leave the dock at the foot of Wisconsin street bridge at 6 o'clock to-morrow evening. Supper will be served at White Fish Bay. It is proper for me to say that it is á la carte, and anyone who goes there can order what he wishes. The boat will return leaving the bay probably between 10 and 10:30; it is perhaps a trip of an hour or an hour and a half.

There has been provided no other special entertainment for the lady visitors. For several years, when the convention has met here, the ladies of Milwaukee have given entertainments for the visiting ladies; but it has been found that these arrangements were not particularly popular. Only a half dozen of the visiting ladies would come to these functions and it seemed as though they hardly paid. There are enough diversions, some of which Dr. Bading has mentioned, for the ladies, while the men are here in the convention; and we hope many of them will go on the boat ride to White Fish Bay, because there will be good music and it is a very enjoyable place. If it should

rain, don't let that discourage you, because there is shelter at White Fish Bay, and a good time will be had even if the weather is not pleasant.

I have been asked by Dr. Reineking to read this notice: A reunion and luncheon of the alumni of Rush Medical College will take place at the Blatz Hotel restaurant, Thursday noon, immediately after adjournment. Those intending to attend are requested to sign a paper which will be posted conspicuously on the bulletin board.

DR. BURGESS: I move that the report be accepted and adopted.

Motion seconded and unanimously carried.

PRESIDENT: The next order of business will be the report of the Committee on Program, Dr. Patek.

DR. PATEK:—Gentlemen, the report of the program committee is already in your hands. The program is complete as you have it. I might say, however, that whereas the number of papers may seem somewhat large, a special effort was made to induce the writers of papers to crystallize their remarks in such a way that much might be left for discussion; emphasis was laid upon the point that discussion be made, if possible, an important feature of the program.

The selection of Drs. Ochsner and Musser, representing the branches of surgery and medicine, will, we hope, commend itself to you. The committee feels that it could not have made a selection that promised to be more satisfactory to the members of the State Society.

Hitherto very little has been left for the Friday morning session, the last session of the meeting, but in order to avoid overcrowding, we have placed some very good papers on the program for that morning, including Dr. Ochsner's address, and we trust that all will make an effort to remain over and enjoy this last session.

The innovation which you will notice in the program, of printing synopses of papers under their titles, will, we think, be satisfactory. It has been made in an effort to crystallize arguments and thus to arrange in advance for those who desire to discuss particular papers.

The program is as follows:

WEDNESDAY, JUNE 27.

AFTERNOON SESSION, 2:00 O'CLOCK.

1. The President's Annual Address.....J. R. Currens
2. Purpura.....W. H. Neilson, Milwaukee
   Discussion opened by G. H. Fellman Milwaukee; J. A. Purtell, Milwaukee.
3. Apoplexy, its Diagnosis and Treatment.U. O. B. Wingate, Milwaukee
   Discussion opened by W. A. Gordon, Winnebago; L. H. Pelton, Waupaca.
4. Surgical Shock.....James S. Reeve, Appleton
   Discussion opened by J. R. Barnett, Neenah; J. F. Pritchard, Manitowoc.

Call to order in General Session by the President to receive Report of House of Delegates.

5. The Relation of Blood Pressure to Surgery.....
.....A. H. Levings, Milwaukee
Discussion opened by H. Reineking, Milwaukee; F. Shimoneck, Milwaukee.
6. Treatment of Sepsis.....John M. Dodd, Ashland
Discussion opened by C. W. Oviatt, Oshkosh; W. E. Ground, Superior.
7. A New Method for the Reduction of Fractures of the Lower Extremity.....Charles H. Lemon, Milwaukee
Discussion opened by Byron C. Meacher, Portage; Stanton Allen, Milwaukee; C. O. Thienhaus, Milwaukee.

8:00 P. M.

Smoker at the rooms of the Milwaukee Medical Society, Goldsmith Building.

THURSDAY, JUNE 28.

MORNING SESSION, 9:00 O'CLOCK.

8. The Benefits of Modern Therapeutics.....S. R. Moyer, Monroe
Discussion opened by J. F. Pember, Janesville; Herman Gasser, Platteville.
9. Negligence of the Profession in its Duty to Secure the Establishment of Temporary Detention Quarters for the Alleged Insane.....J. P. McMahon, Union Grove
Discussion opened by W. F. Becker, Milwaukee; Walter Kempster, Milwaukee.
10. Some Conditions Peculiar to Women....F. W. Epley, New Richmond
Discussion opened by H. E. Perrin, Star Prairie; C. A. Hayes, Chippewa Falls.

Call to order in General Session by the President to receive Report of House of Delegates.

11. Some General Considerations on the Diagnosis and Treatment of Injuries of the Eye.....G. E. Seaman, Milwaukee
Discussion opened by P. H. McGovern, Milwaukee; F. T. Nye, Beloit.
12. Tuberculosis of the Genito-Urinary Organs. Edward Evans, La Crosse
Discussion opened by V. H. Bassett, Milwaukee; C. W. Oviatt, Oshkosh.
13. Annual Address in Medicine.....John H. Musser, Philadelphia
"Pancreatitis."

AFTERNOON SESSION, 2:00 O'CLOCK.

14. Pneumonia. Some Clinical Observations.....Julius Noer, Stoughton
Discussion opened by H. B. Faville, Chicago; W. H. Washburn, Milwaukee.
15. Tuberculosis Sanatoria and Treatment.....C. A. Harper, Madison
Discussion opened by Gustav Schmitt, Milwaukee; F. F. Bowman, Madison.
16. Muco-membranous Colitis.....Lawrence Hopkinson, Milwaukee
Discussion opened by W. C. F. Witte, Milwaukee; G. H. Fellman, Milwaukee.

17. Nervous and Mental Diseases in General Practice.....
.....Richard Dewey, Wauwatosa
Discussion opened by W. F. Becker, Milwaukee; A. J. Patek, Milwaukee.
18. Endometritis.....J. M. Evans, Evansville
Discussion opened by J. F. Pember, Janesville; W. F. McCabe, Beloit.
19. Static Disorders of the Feet.....H. E. Dearholt, Milwaukee
20. Remarks on Surgery of the Naso-Pharyngeal Structures.....
.....M. Iverson, Stoughton
Discussion opened by H. V. Würdemann, Milwaukee; Herman Stolte, Milwaukee.

8:00 P. M.

Banquet at White Fish Bay.

FRIDAY, JUNE 29.

9:00 O'CLOCK.

21. Obstetrical Responsibility During Gestation...W. F. McCabe, Beloit
Discussion opened by Julius Noer, Stoughton; H. Sylvester, Milwaukee.
22. The Medical Aspects of Exophthalmic Goitre.....
.....W. H. Washburn, Milwaukee
Discussion opened by T. L. Harrington, Milwaukee; A. J. Patek, Milwaukee.
23. Surgical Treatment of Goitre.....H. A. Sifton, Milwaukee
Discussion opened by C. W. Oviatt, Oshkosh; R. G. Sayle, Milwaukee.
24. The Basal Principles of Oral, Nasal, and Facial Deformities. with Special Reference to Harelip and Cleft Palate (Stereopticon Views).....Geo. V. I. Brown, Milwaukee
Discussion opened by A. J. Ochsner, Chicago; A. H. Levings, Milwaukee.

Call to order in General Session by the President to receive Report of House of Delegates.

11:00 A. M.

25. Annual Address in Surgery.....A. J. Ochsner, Chicago
"The Clinical Aspect of Stomach Surgery."
26. Psoriasis.....G. H. Lawrence, Galesville
Discussion opened by W R. Cheever, Kenosha; O. H. Foerster, Milwaukee.

Motion made and seconded that the report be adopted. Carried.

PRESIDENT: We will next listen to the report of the Chairman of the Council, Dr. W. T. Sarles.

DR. SARLES: The secretary will report whatever may be of importance regarding conditions in the Council. His report covers the Council's report and the Chairman of the Council cannot make his

report without the items of the Secretary's report. Not being acquainted with them until the meeting here at this time, I had an understanding with the Secretary that that part of his report pertaining to the Council should be read at the time his report was offered.

PRESIDENT: Then we will hear from the secretary.

SECRETARY:—Mr. President, I will not inflict the whole of the secretary's report upon the membership, but I will do as Dr. Sarles has suggested. I will tell you something about the life and the conditions of the county societies during the past year.

When we had our annual meeting last year we had 62 county medical societies in the 71 counties, and we had reports from them all at the meeting. Two and possibly three of these societies have discontinued their organizations during the past year. Forest-Florence county with five members, and Taylor with six members, have found it too difficult to maintain their organic life, and we have been trying to get them attached to other counties; but we find when a county has a name of its own it is very loath to part with it. For instance, we have been trying for two years to get Columbia County to hitch on to Marquette County, and call it the Columbia-Marquette County Medical Society, but Columbia County was unwilling. Then I tried to compromise. I said, you can regard these Marquette people as Columbia people and call the society the Columbia County Medical Society, if you choose, but get them in. This has not yet been accomplished, but we hope it will soon be. They find it difficult to maintain the society when there are so few members (7). Accordingly, Marquette is not represented at present and none of the men in that county are members of any county society. This is also true of Forest-Florence. We have been trying to separate it, to have the west part of Florence go to Oneida county, and the east to Oconto, and to have them regard themselves as a part of those counties, but so far we have not succeeded. We cannot get the secretaries of these counties to go outside their own bailiwicks to get the outsiders in. That is true of Taylor county. We have been trying to get Price county on the north to adopt Taylor and make one society of both counties, and this will be done soon.

So, if we regard these organizations as discontinued we have now 69 county medical societies, all in good working order; reports have been received from all of them, most of them favorable.

Under the old regime we did not have much of a hold on the northern counties. We could not get many of them to come to Milwaukee to the meetings. It was too far off, and it cost too much money. But now we have just as good an organization in the northern part of the state as in the southern, and I am inclined to think a little better. I think there is a better spirit, perhaps, in the northern part of the state where, in a measure, they have been denied fraternal and society privileges, than there is down here. Up there it is a sort of new thing and they are rapidly getting into the medical society spirit.

I sent a blank to all county secretaries asking a report of the year's work, and I have heard from nearly all of them. I will not read these reports, but will say that they are much better and show much better conditions than those we received a year ago.

The evidence is quite convincing that all over the state we are getting many more genuine medical societies—by which I mean, not merely organizations on paper, whose sole function is to elect officers and pay the annual dues, —but societies which are much more real than the theoretical standard we all have in mind—which have regular and frequent meetings at which scientific and practical questions are discussed with both pleasure and profit. In many counties a monthly meeting is sustained, and, when at all practicable, this is very desirable. Very much can be said in favor of a monthly evening meeting. As a rule it secures a better attendance and better sustains the interest.

In regard to the membership of the 59 societies reporting, comparing the number who have paid dues for 1906 up to date with the total membership of 1905, we find that 34 societies have increased their membership, 17 have lost, while 8 have remained the same. This is a much better showing than one year ago, when 33 counties had lost as compared with the report of 1904. The largest gains have been in Milwaukee and Dane, where the gain has been 11 in each, Dodge 8, Waupaca and Brown 7, and Marathon 6; and the greatest losses in Iowa, 5, Buffalo-Pepin and Sauk, 4. These losses are due to local conditions which I think will be corrected in the future.

No others aside from these three have lost over three members, and most of the others losing have lost only one or two.

The present membership, those who have already paid the dues for 1906 and have been reported, is 1,434. At the last annual meeting it was 1,348, a gain of 86. Last year there was a gain of 43, and at the time of our organization we had a membership of 1,305. Doubtless we shall, during the year, get in again the members from Forest-Florence, Marquette and Taylor counties. These, with our natural gain of 50 to 75 members during the year, ought to bring up our membership during the coming year to about 1,500 members. This is a sufficient growth since we began two years ago with 1,300 members, being an increase of about 100 a year.

There are in the state 2,600 physicians of all sorts. So we have everybody corralled all but about 1,100.

Motion made that the report be accepted and adopted.

Unanimously carried.

Recess was taken until 2 p. m.

The individual papers were read as per program, and referred to the committee on publication.

Drs. F. W. Epley and G. H. Lawrence were not present; their papers were read by title and referred. Upon the reading of Dr. C. H. Lemon's paper Dr. Ralph Elmergreen, of Milwaukee, said: "I move that a standing vote of thanks be extended to Dr. Lemon. I for one do not feel able to discuss the utility of this appreciably valuable apparatus." Motion unanimously carried.

Prof. John H. Musser was introduced by the President at Thursday morning's session. After the delivery of his address on "Pancreatitis," Dr. Currens said: "Prof. Musser, as president of the

Wisconsin State Medical Society, allow me to inform you that, in appreciation of your services, with your permission, we wish to make you an honorary member of this society. I will therefore invest you with the badge of the Wisconsin State Medical Society and welcome you as one of our clan.

DR. MUSSER: I assure you, gentlemen, it give me very great pleasure to accept this very great honor which I shall appreciate, and I shall impress upon my family that this is an honor which they should always hold in reverence and esteem as I do.

After the reading and discussion of the paper on "Tuberculosis Sanatoria and Treatment", by Dr. C. A. Harper, of Madison, the following motion was made by Dr. C. H. Stoddard, of Milwaukee, with reference to the organization of a state tuberculosis league:

DR. C. H. STODDARD: The interest is here, and in order that something may be accomplished along this line, I move that a committee be appointed from this society today, which shall report at 10 o'clock tomorrow morning as to the advisability of forming a state league on tuberculosis.

Motion seconded by Dr. Sheldon, and unanimously carried.

PRESIDENT: How large a committee do you want?

DR. STODDARD: Five, appointed by the President.

PRESIDENT: Motion made and seconded that the committee be five in number, and be appointed by the president.

Unanimously carried.

PRESIDENT: I will appoint as that committee, Drs. C. A. Harper, C. H. Stoddard, G. E. Seaman, John M. Beffel and Dr. J. N. Coon.

The following report was made to the Society by this Committee at Friday morning's session:

DR. C. A. HARPER of Madison:—Your committee on the organization of the state tuberculosis league begs to report as follows:

That inasmuch as the National Association for the Study and Prevention of Tuberculosis has been organized and is in successful operation, and the numerous states have already organized leagues to work in conjunction with the National Association, the time has arrived when Wisconsin should be represented by a state league for the suppression of tuberculosis.

We, therefore, recommend that such a league be organized to include both members of the profession and laity; and that a committee consisting of one member of this society from each councilor district be appointed by the president, whose duty it shall be to promote this organization in the futherance of the work in the several districts throughout the state and to urge the county societies and various lay organizations to interest themselves in the movement; and that also a special committee of five be appointed by the president, together with the members appointed from the councilor districts to

constitute a committee for the incorporation and organization of a state association for the study and prevention of tuberculosis.

Respectfully submitted,

(Signed by the entire committee.)

DR. NOER: I move the adoption of the report with recommendations therein contained.

Seconded by Dr. Hall and unanimously carried.

The report of the House of Delegates was then presented and read by the Secretary, and adopted.

SECRETARY:—The most important action of the council was the election of Dr. Boothby as chairman of the council, and Dr. Holbrook as secretary, and also the arrangement by which the House of Delegates shall hold its first meeting at 1 o'clock instead of 8 o'clock Tuesday evening, as heretofore.

Of the dues received from each member $1.20 is for the JOURNAL, and 80c for the expenses of the society.

I will also state for the information of the membership, that from addition to memberships received during this meeting, our present number amounts to 1,450, which secures us a membership of at least 1,500 during the year 1906.

You will remember that our membership two years ago, when we first rounded up after we adopted this plan, amounted to 1,305, so that we may safely say that we are growing at the rate of 100 a year.

I will again say that having received the report from Portage county, the only county from which we had not received a report, with two additions, we have a report from 68 regularly organized county medical societies in the state, and that there is no question about the fact that our organization is in better shape, is more easily maintained, and works more smoothly than it has since our plan began. So that we may congratulate ourselves that our new plan is not only working well, but especially that it is securing membership to our county societies, and it is succeeding as well as we could have possibly wished.

Moreover, the registration is the largest by probably over 50 in the history of the society, the attendance being 386.

Motion made, seconded and unanimously carried that a committee be appointed to escort the newly elected president to the platform.

The president appointed Drs. Bell, Sheldon and Hall as such committee.

President-elect Pelton was then escorted to the platform by the committee, and was greeted with long continued applause.

DR. BELL: Gentlemen of the State Medical Society: Your president and the Committee have delegated to me the duty of presenting to you your president-elect. As a member of this society since 1868, I pledge you, that in gentlemanly courtesy, dignity, and suitable qualifications for a presiding officer you have made no mistake. I have the pleasure of presenting to you Dr. L. H. Pelton, of Waupaca, as your president for the year.

PRESIDENT-ELECT PELTON: Ladies and gentlemen: This is an

honor that I hardly expected. I had aspired to do as well as I could, but I never expected the honor of being elected president of this great and noble medical society of the state of Wisconsin. I wish to thank the nominating committee and the members of the House of Delegates, and I also wish to thank every physician present for the kindness and courtesy that has always been shown me.

I have felt indebted to you all, and I feel that I am now indebted to such an extent that I can never hope to repay you. I thank you all.

RETIRING PRESIDENT CURRENS: (To president-elect Pelton). Allow me to present you with the gavel. I hope and feel sure that you will meet with the same support that I have met, which has been almost unanimous—in fact there has not been one bit of opposition during my term as president; and to you whom I have had the pleasure of serving during the last year, I extend my thanks, and such thanks can only be extended by those who have received something they never expected. The little work that I have done for the profession in past years was done because I felt that it was my duty to do it. If it has merited your appreciation I am thankful. You elected me your president and I hope I have given you satisfaction. Again I thank you.

PRESIDENT PELTON: Ladies and gentlemen: The first duty I have to perform, I assure you, is one of great pleasure, that is, of introducing to you a gentleman who will deliver the Annual Address upon Surgery. We are all acquainted with him, because he has made a reputation that is world wide. Dr. Ochsner has long been a member of our society, and, as I understand it, acquired his early education as most of us have, in the good old state of Wisconsin.

I take great pleasure in introducing Dr. A. J. Ochsner, of Chicago.

After the delivery of the Annual Address on Surgery on Friday morning, by Dr. A. J. Ochsner, of Chicago, the meeting adjourned.

PROCEEDINGS OF THE HOUSE OF DELEGATES.

The meeting of the House of Delegates was held Tuesday, June 26, 1906, at 8 P. M., at the rooms of the Milwaukee Medical Society at the Goldsmith building.

Meeting called to order by Dr. A. W. Gray, First Vice-president.

The roll was called by the Secretary and delegates were found to be present representing the following counties: Calumet, Dane, Dodge, Douglas, Dunn, Fond du Lac, Iowa, Jefferson, Kenosha, Lafayette, Manitowoc, Milwaukee, Monroe, Racine, Rock, Sauk, St. Croix, Sheboygan, Washington, Walworth, Waukesha, Waupaca and Winnebago.

A quorum being present the House of Delegates proceeded to the regular order of business.

The chairman called for the report of delegates to the American Medical Association.

REPORT OF DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

DR. W. T. SARLES, of Sparta, then presented the report as follows:

The Official Minutes of the House of Delegates of the American Medical Association held in Boston, June 5th—8th, 1906 are published in full in the *Journal of the American Medical Association* of June 16th, to which we respectfully refer the Society for all detailed information desired.

The important changes made by this body and which relate to our Society proceedings are, first, the adoption of the report of the committee on re-apportionment of delegates, making the basis of one delegate to every six hundred members instead of five hundred members as before.

This was done in order to keep the number in the House of Delegates within the required limits of one hundred and fifty. This leaves our State entitled to three delegates, the same as before.

The second change is in giving power to the Board of Trustees to change the place of the annual meeting of the American Medical Association not later than two months prior to the date set for the same for cause, such as undesirable transportation rates or inadequate hotel facilities.

The meeting for 1907 is to be held in Atlantic City, N. J., the time to be in June and the exact date to be decided by the Board of Trustees.

The third matter of importance to us was the reiteration of a resolution formerly carried that the constituent societies be requested to hold their annual meetings in the fall, instead of in the spring.

Another resolution adopted of interest to us all was the appointment of a committee of five, to be known as the committee on Insurance, whose duty it shall be to confer with the old line insurance companies relative to examination fees. The committee is a strong one made up of the President, three ex-Presidents, and Dr. J. N. MacCormack, the National Organizer. Much will be expected of this committee.

Still another resolution was adopted which is of vital interest to us, viz.: "That the Board of Trustees is hereby directed to set aside so much of the annual dues of each member as shall secure for the member a subscription to the *Journal of the American Medical Association.*" This is made necessary in order to meet the requirements of the postal laws and a similar arrangement will have to be effected by this Society in the interests of our State official journal. By an examination of the minutes you will see that only about one-third to one-half of the physicians taking the *Journal of the A. M. A.*, are members of the Association. In our state, which is among the six highest in percentage, there are 1202 physicians taking the *Journal* while there are but 682 members of the A. M. A., while all of the 1,385 members are eligible and the 1202 now taking the *Journal* can be members without extra charge.

Numerous other resolutions and reports of an important character to the profession were adopted by this body as a perusal of the official minutes will show you, the most important of these being the ones pertaining to reciprocity among the State Examining Boards and those requiring a higher standard of education for admittance to medical colleges. Wisconsin had sixty-eight men registered at the Boston meeting. Resolutions were also adopted recommending the States to assist in the work favorable to the en-

acting of pure food laws and against the evils of nostrums. The Boston meeting was certainly the largest ever held in the history of the Association, there being nearly 5,000 members registered and an outside attendance of nearly 15,000 people. Other physicians in attendance who did not register made the estimate of physicians in attendance upwards of 6000.

The Board of Trustees' report shows a total money valuation of the Association and Journal of about $250,000. This enables the Journal to carry on its work without the help of certain advertisements which might be of questionable character and the refusal of many of these advertisements on account of their questionable character has caused a concerted effort on the part of manufacturers of certain nostrums to gain control of the membership of the Board of Trustees of the *Journal A. M. A.* for personal purposes, hence the future danger to the Association Journal and its management at all times from these sources. A sharp but decisive fight took place in the House of Delegates on the election of trustees this year, which was settled in favor of the present management of the Journal. The battle cry of these insurgent forces is to break up the "ring", when in reality their purpose is evidently to get control of the Journal and shape its policy to their own selfish ends. In all States in the election of delegates to the A. M. A. they should consider the men elected from the standpoint of their loyalty and allegiance to non-sectarian and legitimate medicine, for in the Board of Trustees lies the power to control the policy of the Journal.

W. T. SARLES, B. M. CAPLES, *Delegates.*

DR. J. L. CLEARY, of Kenosha: What are the trustees doing?

DR. SARLES: The trustees' report will read that such an amount of the five dollars shall be set aside for the purpose of covering the dues, and such an amount to cover the subscription to the Journal.

You will find the resolution reported here in the minutes of the A. M. A. proceedings of June 16.

The American Medical Association was notified that it could not send the journal as fourth-class matter any longer, so long as it represented dues to an association, and the association was asked either to change its rules in accordance with the laws of the United States or pay the difference, and that same question has come up with regard to this society journal.

Motion made and adopted that the report be accepted and placed on file.

The reports of councilors by districts was then called for.

REPORTS OF COUNCILORS.

DR. G. WINDESHEIM, of Kenosha, presented the report of the Second District as follows:

Membership.

Kenosha County, June 1905—14. June 1906—18; gain 4.
Racine County, June 1905—21. June 1906—25; gain 4.
Walworth County, June 1905—21. June 1906—26; gain 5.
There is a District Society of which Dr. J. C. Reynolds of Lake Geneva

is President, and Dr. J. P. McMahon of Union Grove, Secretary.

The councilor was present at two meetings of the Walworth County Society and one meeting of the Racine County Society. This being my first year as councilor I have done some missionary work, as it may be termed, in Racine and Kenosha counties. There still exists in Racine county the two societies, one the county society and then the city of Racine has a society called the Physicians' Business Association, which is apparently sufficient for their local use, and for that reason the physicians in the city of Racine hesitate to join the county society. However, there is a gain of five in the county, and I expect by another year we will have a still greater gain.

In Kenosha the two societies also exist, the old Kenosha County Medical Association and the Kenosha County Medical Society. We have there tried to amalgamate the two societies in such a way that we meet with each other. One society meets one month and the other society meets the next month, and we meet every month as each other's guests.

There are only five members left in the old association who are not members of the society, and I do think that by another year they will all be members.

Since this report has been made out I have received the application of two other physicians, so that take it altogether I am very well pleased with the showing this year in the second district.

DR. F. T. NYE, of Beloit, then presented the report for the Third District as follows:

Green County has 21, a loss of 3 members; Rock County has 40, a gain of 5; Dane County has 74, a gain of 11; Sauk County has 13, a loss of 5; and Columbia 26, a gain of 3. They were a little unfortunate in changing the dates of their meeting in Green County; the next meeting will be held about the middle next month. There was only one other meeting during the year, and I did not get notification of that until too late to attend.

In Sauk County they are to meet on the 5th of July. They are beginning to get a little interested and I am hopeful that before the year is over they will do better work.

Columbia and Marquette County are really friendly, although no union has taken place. I think, though, that they understand that this will be the outcome.

In the work of the organization, the newness is wearing off, which is more encouraging all around, so that the outlook for the next year is better than ever, and I am in hopes that we will gain materially in numbers, but of course we have to gain mainly through the homeopathic as well as eclectic schools, to increase the numbers very much.

Most of our own school in every county are, I think, already members of their county organization.

DR. J. F. PRITCHARD, of Manitowoc, presented the report of the Fifth District as follows:

I do not care to make any formal report—in fact I did not get a report from Fond du Lac county. I will let Dr. Mears, if he has anything to say for Fond du Lac county, say it. The other counties all show gain, or at least

held their own. Most of them have shown gain. One thing to which I would like to call the attention of the House of Delegates as well as physicians, is the method that we have adopted. We have had several district meetings, and the local physicians have always given us a banquet and treated us well. I think that is one of the things that the physicians ought to do more.

I have been in this work now so long that I find that if you treat the stomach well the rest of the body goes with it pretty completely, and there is a better attendance, a paper or two, good discussions and a better time generally.

At one of our county meetings the physicians of Two Rivers gave us an invitation to come there, which we accepted, and they gave us a nice dinner and a little souvenir of Two Rivers, a match-box made by the Aluminum Match Company; and we had an attendance there of three-quarters of the whole membership, and a very excellent meeting.

In our district meetings we have been fortunate in getting talent from the outside.

Dr. Gordon gave us the address at Brillion, Calumet county, where the district meeting was held, and I think every physician in Calumet county was there; and the other near by counties were pretty well represented. Fond du Lac county was short again.

I think that the present plan of organization is an unqualified success, and if there is a little effort made by the physicians in their local counties, there is no doubt but the friendly feeling among physicians will be enchanced and the success of the societies will be without any doubt whatever.

At this time I think I may say that I have done my share of the work, and I would like to resign in favor of some other physician as councilor. I think I have served my time pretty well, and it is quite difficult for me to spare the necessary time now to attend the meetings, and I want to resign in favor of Dr. Mears of the Fond du Lac County Medical Society, because he has had some little experience in the original organization and can carry on this councilor's work without its taking too much time.

DR. E. L. BOOTHBY, of Hammond, then presented the report of the Tenth District as follows:

Mr. President and gentlemen of the Society:—The Tenth District brings you greeting with a fairly favorable report of the condition of affairs up in the northwest on the shores of the placid St. Croix.

I was very much afraid a month or six weeks ago that we were going to fall behind a good deal in membership. Our secretary is a perfect bed bug to stir up a fellow, and he kept firing letters at me to the effect that every county in my district had lost except one, and he got me to work. Well, I found out that as far as I have been able to get a report from the counties in the 10th district, we are one ahead of last year.

I came down to Eau Claire last evening and put in an evening with the Eau Claire County Medical Society. They had not sent in their report to the secretary; he knows nothing about how they are, but they lose two members —that is two paid members—they have them on the books and will get the money in a week or two, with two more, so that there will be a gain of four right off. One of them is Dr. Noble. He was on the programme last night, but he left the hall and forgot to pay his dues.

I think I had better not read these reports as they came in. I have them from every society in the district with the exception of Chippewa county. I have not been able to get anything from Chippewa county since a year ago last December, except two letters which I have received from the president; in both of those letters he stated to me that it was utterly impossible for him to get the members together for a county society meeting, but that he would do so very shortly—as soon as possible—and would let me know, so that I could be with them. I have not visited that county for that reason.

The society in the north, Barron—Polk—Rusk County, I have not visited, because I never could learn when they met, and they only meet four times a year and failed to notify me, having a new secretary whose name I did not know until two weeks ago.

SECRETARY:—He is a good one too, Dr. Nels Werner.

DR. BOOTHBY:—Yes, I guess he is. I met the president of the society the other day in St. Paul, and he tells me they are doing very nicely, but they are scattered a great deal and have to go a good ways to get to a meeting —about 30, 40 or 50 miles, many of them—and they cannot meet oftener than once in three months. I have been trying to work this scheme of county society meetings and get them together every four weeks. I have succeeded in getting my own county to hold a meeting every month, and have a splendid programme for the year. Dunn county led out in that scheme and Eau Claire followed. So that there are three of the six societies that have a printed programme for the entire year in advance, so that they know what is coming and can be prepared for it.

If the society has members enough who are interested, even if there are not over a dozen members, I think this a most excellent plan for them to adopt although it means hard work and lots of it, but that is what you are there for— to work right up to the point of your best capacity all the time.

Pierce county I met with once this last year, but I think they have held very few meetings. Indeed I do not know that they have had any papers read that originated in the county. I cannot learn that they did, and I very much want Pierce and St. Croix county to come together, and I want Eau Claire and Chippewa counties to come together. I think then we will have the profession in the 10th District very much better organized than they are to-day.

I am very well satisfied with the organization in the north part of my district—the Barron—Polk—Rusk counties.

There are two or three railroad lines running through that territory in different directions, so that they can once in three months get together, and they have an excellent meeting when they do have one. There is a great deal of interest shown.

Eau Claire is doing most excellent work and if Chippewa county will come down and meet with them or if they will hold their meetings together every month, it would be much better. They are not doing anything, as near as I can find out, alone.

Dunn county is doing very well indeed. St. Croix county is doing passably well, not as well as I wish they were.

I have attended every meeting in my own county the past year and expect to for a year to come.

Pierce county, as I said before, I would like to see join St. Croix, and

I would like to see Chippewa join with Eau Claire—I do not believe that we can make a success of a county medical society in which there are only six or eight members and only two or three attend, and then have irregular meetings.

We should make the membership large enough by adding to it along railroad lines, rather than following county lines or any other line, and give your county society a large enough membership so that they will have a good strong organization and be able to get up a good interesting programme, and do careful, painstaking, scientific work. Then you are in condition to progress and as the county society progresses, as the county society grows, so will your state society grow.

This is nothing but a meeting of county societies; it shows in its meeting just what kind of county societies you have and where the best work is done at home.

I wish to call the attention of the House of Delegates to the fact that as near as I can find out, and I have looked the matter over, you have not been in the habit of electing the officers of this association according to the by-laws of this association.

You can elect any member president, but your vice-presidents, according to section 11 of your by-laws, must be taken from the presidents of the district societies. The vice-presidents of the district societies must be taken from the presidents of the county societies. Please look that up—section 11 of the by-laws—and I would suggest, though I do not care to make the motion, that the Secretary furnish the nominating committee a list of the presidents of the district societies so that they may select vice-presidents from that list for election to the vice-presidency of this society.

The following is a summary of the Tenth District's record:

	1905	1906	Loss	Gain
St. Croix	16	13	3	..
Barron—Rusk—Polk	26	28	..	2
Pierce	15	18	..	3
Dunn	20	21	..	1
Eau Claire	26	24	2	..
	103	104	5	6

Net gain in District of one (1).

DR. W. T. SARLES, of Sparta, presented a report of the Seventh Councilor District as follows:

My district, the Seventh, has a membership of 107, which is two more than it was in 1905. La Crosse county is the only county which holds monthly meetings, and they are held in the evening.

The district society of the seventh meets midway between the June meetings, as a rule in November, and the meeting was held last year in LaCrosse.

I visited all the counties except Buffalo—Pepin, but could not seem to find out where they are going to hold a meeting. Dr. John Lyman of Eau Claire agreed to attend the next meeting they held, and I do not think Dr. Lyman found out the place of meeting either.

We have a very small percentage of eligible men who are not already members in my district—I do not remember just the percentage—but the condition of the societies is much better than it was a year ago, and it will continue to improve as the work progresses.

DR. PRITCHARD: I would like to call attention to what Dr. Boothby mentioned as to the railroad lines. When we first attempted this organization we had in mind the railroad lines as the lines on which the councilor districts should be organized, and I think we have had experience enough to make the changes that would give the councilors very much less work and require less time to visit the different counties.

DR. BOOTHBY: That is not so necessary as it is to have them most convenient for the county societies.

DR. SARLES: There is one other thing that I think should be changed. I believe our state should take the initiative in it too. When a man lives on a county line very much nearer another county society than his own he has a right to join the society providing his own county is willing. Now, it ought to be provided the state society council is willing. The constitution ought to be amended in that respect.

The constitution reads that he may transfer his membership if the county in which he resides gives consent, and very few of the counties want to let their men go. He may be a good man, 20 miles from his own county seat and only five miles from where the other county society meets. It should be left with the council of the state society.

If the councilor of the district so decides, that should be satisfactory. If you leave it to the county alone the physician can never belong to the other county society.

DR. PRITCHARD: We have had that question up in our county. In one corner of Manitowoc county, Kiel, the St. Paul road runs right through that town up to Chilton. Now men in that locality are so much nearer Chilton and Calumet county that we simply give them all to that county. There is no question about it at all, and I think you will find that the constitution provides for that and provides for it in a good way, that is having the right to go to the county that the members elect.

DR. SARLES: But the point is that they cannot do it without the permission of their own county society.

DR. PRITCHARD: Their own county never will refuse.

DR. SARLES: Here is a cause in Grant county. Boscobel wants to belong to the county adjoining, because they get it so much easier than they can get over to the county seat, but they wont let them do it. Dr. Charles Armstrong, a member of this House of Delegates, and other members of the society in Boscobel and vicinity want to belong because it is nearer to them, and they wont let them do it, and that is why I said there should be some way of their obtaining permission to join another county society than their own other than permission from their own county.

DR. PRITCHARD: We can change the by-laws and make it obligatory.

DR. SARLES: Then the application can be made first to the councilor and an appeal will be made to the council if necessary, and then to the House of Delegates, and in that way jurisdiction for the removal is obtained outside of the county in which the member lives.

DR. PRITCHARD: I have insisted that this right already existed.

DR. GRAY: The appeal I think is provided for.

DR. SARLES: The appeal of a member in the case of any charge made goes to the Councilor, and the Councilor reports to the council, and the council to the House of Delegates, but there is no provision that a man can join another society unless the county in which he resides permits him to do so. There is nothing in our present by-laws or constitution that permits that.

DR. PRITCHARD: I think it would be wise to make that obligatory. I will draft an amendment to the by-laws.

(To be concluded in September number).

DUNN COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Dunn County Medical Society was held at Menomonie, July 17th, with twelve members present.

Dr. A. Egdahl of the Pathological Department of the State University of Iowa read a paper on *Acute Pancreatitis*, with special reference to etiology, and reported two cases. The most common causes given were gall-stones and gastro-intestinal disturbances, especially those due to alcoholism. Besides these a number of other causes were given, which had been noted in going over the published cases, as typhoid fever, tuberculosis, mumps, trauma, syphilis, emboli, appendicitis and malaria. Of the two reported cases one was associated with typhoid fever, the other followed a gastro-intestinal disturbance.

Dr. Larson read a paper on *Diabetes*, with report of three cases in which an exclusive meat diet gave brilliant results. Discussion was opened by Dr. Herriman. Dr. Denham read a paper on *Puerperal Eclampsia*, giving a report of nine cases with three deaths. Discussion was opened by Dr. Heising.

Meeting adjourned to August 21st.

F. E. BUTLER, M. D., *Secretary*.

CENTRAL WISCONSIN MEDICAL SOCIETY.

The annual meeting of the Central Wisconsin Medical Society was held at Madison, July 31, with an attendance of about 35.

Dr. L. H. Fales of Madison read a paper on *Beri-beri*. It was an account of his personal experiences in the Phillipines with this obscure and interesting affection. In his opinion the causes of the disease are dietetic rather than

microbic. While proper sanitation is important, a suitable proportion of fresh vegetables and nitrogenous food is most essential.

Dr. R. J. C. Strong of Beloit reported a case of *Tubercular Meningitis.*

Dr. Fred E. Sutherland of Janesville read a paper on *The Differential Diagnosis of Appendicitis in Children.*

Dr. F. A. Thayer of Beloit read a paper on *Acute Articular Rheumatism —with Report of Case.*

Dr. J. A. Jackson of Madison gave a talk on *Surgical Aspects of Certain Stomach Diseases.*

These papers were all discussed by the members present.

The usual banquet was held at the Park Hotel and was greatly enjoyed by all. Dr. S. R. Moyer acted as Magister and the following toasts were responded to:

The County Society. Dr. Julius Noer, Sec. Dane County Medical Society.

The District Society of the 3rd Councilor District. Dr. F. T. Nye.

The State Medical Society. Dr. C. S. Sheldon, Madison.

The Central Wisconsin Medical Society. Dr. J. A. Jackson, Madison.

The first business of the afternoon session was the formation of the District Society of the 3rd Councilor District. (Columbia, Dane, Green, Rock, and Sauk Counties.) On motion it was unanimously voted that the "Central Wisconsin" shall be known hereafter as the District Society of the Third Councilor District. The election of officers for the new Society resulted as follows:—

President, Dr. J. A. Jackson of Madison.

Vice-Presidents, Dr. B. C. Meacher, Portage, Columbia County; Dr. L. R. Head, Madison, Dane County; Dr. G. W. Roberts, Albany, Green County; Dr. L. F. Bennett, Beloit, Rock County; Dr. F. D. Hulburt, Reedsburg, Sauk County.

Secretary and Treasurer. Dr. C. S. Sheldon, Madison.

Censors, Dr. J. F. Pember, Janesville; Dr. A. S. Thompson, Mt. Horeb; Dr. J. C. Cutler, Verona; Dr. J. F. Gill, Madison.

Dr. P. A. Fox of Beloit read a paper on *Uterine Curettage, Uses and Abuses.*

Dr. John Binnie of Poynette read a paper on *Infant Feeding.*

Dr. B. W. Shaw of Waunakee read a paper on *Neurasthenia.* The discussion of these papers was interesting and profitable.

It was voted that the meetings shall be held quarterly as before, and that the next meeting be at Baraboo, the last Tuesday in October. The plan of frequent meetings was adopted so as to be able to do more missionary work in counties needing it.

C. S. SHELDON, M. D. *Secretary.*

CURRENT LITERATURE.

Surgery of the Biliary Tract.—J. B. DEAVER, (*Journal A. M. A.*, August 11), is in favor of removing gallstones whenever present, provided there are no contraindications, and also considers cholecystotomy the safest treatment of any frank attack of acute cholecystitis that does not subside under judicious medical measures in thirty-six or forty-eight hours. Operation is almost imperative if the attack is not the first and we believe from the history that gallstones are present. In mild recurrent cases, also, he considers operative interference indicated, and in the latter stages of gall-bladder disease operation is also invariably demanded. In hydrops, cholecystectomy is required, as the closing of the cystic duct renders the gall-bladder useless and there is constant danger of reinfection or even of rupture. Cholecystectomy is also indicated in gangrene and perforation, but not in empyema, except when of long standing and with the walls very extensively diseased. When gallstones exist the condition is more serious, and the patient is fortunate if they can be removed before they wander from the gall-bladder. The advantages of operation in the latent stages are pointed out. Deaver protests against any indiscriminate resort to cholecystectomy in operating for impacted stone in the common duct unless the gall-bladder is very much diseased. He believes that its retention and drainage constitute a very valuable part of the after-treatment. When the infection has traveled beyond the gall-bladder and involved the hepatic ducts, or even if the cystic duct is very much infiltrated, he would drain the common duct as well. This is not, in his opinion, a difficult or dangerous procedure, but it requires to be done judiciously. There are times when the surgeon, against his will, is called on to operate for acute impaction of a stone in the common duct. The mortality in these cases is appallingly high, but with progressing infection it may be the only chance. The possibility of the pancreas being also involved is to be considered and this makes operation the more imperative when it occurs. In conclusion he mentions typhoid cholecystitis as a matter of importance and expresses surprise that it has not been more considered. Patients who during typhoid give evidence of biliary involvement should, if possible, undergo cholecystostomy on recovery if their symptoms persist, thus not only avoiding future serious disease, but also more effectually preventing their dissemination of typhoid infection from their intestinal tracts. Tabulated statistics of 216 cases are appended to the article.

On the Treatment of Corneal Opacities.—PICK, (*Centralbl. fuer Augen*, 1906, p. 176), used for about three years with good results, in old opacities of the cornea, solutions of chloride of ammonium, recommended by H. Guillery for clearing opacities of the cornea caused by lime. In a case, e. g. of a central scrophulous opacity of six years standing in a girl, aged 18, V rose from 1/10 to 1/4. One to three teaspoonfuls of the mercantile sal ammoniac water are dissolved in a cup of boiled tepid water and with this applications are made on the eye for 20 minutes, 3 to 4 times a day. (C. Zimmermann.)

Capillarity in Intestinal Sutures.—F. G. CONNELL, (*Journal A. M. A.*, Aug. 11), has tested the capillarity of intestinal sutures in order to ascertain whether or not through and through sutures of all the bowel coats would be

likely to produce infection of the serosa. He experimented with various suture materials, silk, catgut, celluloid, etc., under differing conditions of moisture, tension, etc., both in colored intestinal fluid contents and with plain colored fluids outside the body, and also in living animals in which a loop of intestine was isolated by ligatures and colored solutions injected into the isolated section. The time allowed for the capillarity to manifest itself was two hours, as that would be sufficient for the formation of a plastic exudate that would of itself be protective. The conclusion reached from the experiments, which were generally negative as regards any serious penetration of the coats or infection of the serosa, is that the danger from capillarity has been greatly overestimated and that it should no longer be considered an objection to the through and through stitch. By employing a square or right-angled, instead of a round or whip stitch, the extent of the suture material on the serosa may be reduced to a minimum, and that little can be separated from the general peritoneal cavity by serous apposition. The article is illustrated.

A Danger of Argyrol.— SPENGLER, Hildesheim, (*Zeitschrift fuer Aug.* 1906, XV., p. 441), emphasizes the great value of argyrol in diseases of the lacrimal organs, but warns against the danger of its entrance into the tissues through lesions of the mucous membrane, as it will lead to irreparable argyrosis. (C. Zimmermann.)

Hot Weather for Infants.—G. R. PISEK, (*Journal A. M. A.*, August 11), calls attention to the importance of the proper excretion of heat to infant health and how it is affected by diet, atmospheric humidity etc. The temperature of the air, therefore, is not a safe guide to follow in judging summer conditions and the causes of digestive disturbances in infants. The need of care to prevent food infection still further complicating the conditions is also pointed out. He sums up his conclusions, in substance, as follows: 1. In warm weather keep a light woolen garment over the abdomen to prevent sudden chilling and retention of heat by suppression of prespiration. 2. Bathe the child twice daily to remove salts and fats on the skin that are left by the sweat and tend to retard the evaporation and to embarrass the excretion of heat. 3. Give plenty of cool boiled water to drink, thus replacing that lost by prespiration. 4. Pasteurize all food of well infants to retard decomposition. 5. In close or muggy weather, or if the humidity is high, dilute the food to one-half with boiled water. In very mild weather, with high temperature, stop milk and feed with gruels till the humid spell is over. 6. On warm, humid nights stop milk feeding, as the humidity is greater at night, though the temperature may be lower. Feed gruels or whey, which produce little heat. 7. For diarrhea, give castor oil or calomel to eliminate decomposing food. Stop milk feeding temporarily. If the air is hot but dry, milk may be resumed. With high humidity, feed gruels or whey to starve out putrefactive bacteria and get back to milk very cautiously. 8. Keep up a good air circulation, as stagnant air soon becomes saturated, thus preventing prespiration and heat absorption.

Retrobulbar Neuritis Following Burns of the Skin.—LINDENMEYER, Frankfurt a. M. (*Klin. Mon. fuer Aug.* 1906. XLIV. I. p. 495). A healthy laborer, aged 19, sustained by explosion of a benzine lamp burns of the first

and second degrees of the dorsal sides of both hands, the lower two-thirds of the forearms and of the face. After 2 or 3 weeks he complained of pain in both eyes, especially when moving them. This disappeared after a week, but his sight commenced to fail. The examination 7 weeks after the accident revealed: borders of discs indistinct, temporal halves slightly pale, vessels normally filled, at the right upper margin of the disc several small retinal hemorrhages, at the upper temporal quadrant of the left disc a hemorrhagic dot. Fingers in each at 1 m. Central absolute scotoma for white and colors, visual field not contracted. Under diaphoresis, iodide of potash in large doses and subconjunctival injection of salt solutions, V R rose to 1/15, V R to 1/35.

Mooren, who first called attention to these affections, observed bilateral optic neuritis after superficial combustion of both legs. Generally the retina is chiefly affected in the form of hemorrhagic retinitis (Knies, Wagenmann). Most cases gave a favorable prognosis with regard to restoration of vision, probably because the optic nerve was scarcely involved. In this case Z. considered the prognosis very bad on account of the retrobulbar neuritis which had descended to the optic disc. As it corresponded exactly with the type which we generally observe in intoxications, the author ascribes the etiological connection with the burns of the skin to intoxication. (C. Zimmermann.)

MISCELLANY.

Banana Flour is said to be of great value as a diet for invalids and children. The explorer Stanley spoke highly of its efficacy in gastritis, and the testimony of physicians in India and the West Indies is said to prove its value in dyspepsia. It is also claimed to be a suitable substitute for cereal flour in diabetes.

"Delicensed Physician" is the name a Chicago physician has coined for those of our profession whose licenses have been revoked for cause. We welcome the name and wonder why a stronger effort is not being made now to apply it to a number of Milwaukee colleagues who deserve the distinction.

German Food Adulteration.—According to statistics at hand, in the year 1888 there were 1,400 prosecutions for adulterating food products; in 1898, 3,000; in 1901, 3,586; and in 1903 the number had increased to 6,000.

Milk Inspection in Germany.—The German regulations to secure a pure product are very stringent. Here follow several of the rules:

"Milk for invalids and infants may be sold only when the owner of the institution, the seller, or the producer follow the special regulations pertaining to the sale of such milk, and when he has submitted to special police and sanitary control of the police department. The names of the owners of such institutions must be made public. Milk when shipped from the city without being accompanied on the railroad by a representative of the shipper must be placed in cans, which must be locked or sealed."

"If a doubt arises as to quality or specific weight a sample for chemical analysis is taken, for which a receipt

must be given the owner of the milk, who is also entitled to a part of the sample in a properly sealed receptacle, and full payment for the sample taken."

"If the chemical examination does not give proper data for a safe decision as to the quality, then an examination and test of the stable where the milk was produced may be ordered within two or three days at regular milking time, with a police officer present."

Vaccinating Trees.—The scientific treatment of diseased plant life has enjoyed quite an impetus of late. It frequently happens, say the United States consular reports, that the roots of fruit trees are more exhausted than the parts above the ground and so the life of the tree is threatened. In order to prolong its life in such cases it has been recommended to vaccinate the trunk of the tree with a solution of sulphate of iron, the same article which is used in the so-called anaemia or chlorosis (Bleichsucht) of the grapevine. A Russian scientist has now made minute scientific experiments with reference to the results of such vaccinations, and by employing colored solutions he has shown that the solution never enters into the old wood. It only follows the young growth, but it penetrates into the roots down to a depth of 1 meter (about 39 inches), while on the other hand it penetrates up to the top of the tree. It is therefore deemed best to vaccinate the tree through a single opening of the neck of the root, and it should serve not only for the introduction of nutritive substances, but also of such liquids which, by killing certain bacteria, tend to cure disease of the plant.

Tuberculosis in Germany.—Consul E. T. Liefeld forwards from Freiburg the returns of the German national congress of tuberculosis, which show that there has been a decrease of 38 per cent. in the deaths from tuberculosis since 1875, while the sanatoria have restored to health and to their work 34 per cent. of the persons treated in the sanatoria. From 1901 fewer than 26,621 persons coming under the workmen's insurance act were treated in the sanatori. From 1901 to 1905 the insurance companies of Germany have expended $9,246,350 in fighting the scourge. This outlay included 26 sanatoria with 2,111 beds for women, and 10 sanatoria with 541 beds for children, all these being due to the suggestion of the German Empress.—(U. S. Consular Reports.)

The Quarterly Journal of Inebriety has issued a very attractive summer number. Among the leading articles are: "The Relation of Alcohol to Tuberculosis," by J. W. Grosvenow, M. D.,. "Physiological Action of Tea as a Beverage," by Sir Lauder Brunton, M. D., "Morbid Predisposing Causes in Dipsomania," by W. I. Howard, M. D., "Reflexes from the Eye in Narcosomania," by T. H. Evans, M. D., "The Alcohol Cult," by John Madden, M. D., "Comparison of the Effects of Alcohol and Opium," by W. H. Park, M. D., and two articles by the editor, Dr. T. D. Crothers, on "Unrecognized Toxic Insanities" and "Farmfield Reformatory for Inebriate Women."

"The Bellman," a new weekly journal soon to be issued, has set for itself the high standard of several of our best and cleanest magazines of large circulation. In the advance announcement, the editor calls attention to the class of advertising that will not be acceptable to the Bellman's pages, and this includes quack medicines, cancer, fit, and scrofula cures, fakes, and all other types of reprehensible ads. "If you want a clean paper you must be prepared to pay for cleanliness. Dirt is always cheap."

THE WISCONSIN
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SEPTEMBER, 1906.

ADDRESS.

THE CLINICAL ASPECT OF STOMACH SURGERY.*

BY A. J. OCHSNER, M. D.

CHICAGO.

Mr. President, Ladies and Gentlemen:

I assure you that I appreciate most fully the privilege of speaking to the medical profession of my native state. I have always appreciated the privilege and the blessing of being a member of this community from the first until the beginning of my professional career; and I attribute much of the comfort, satisfaction and pleasure that I have had in my professional life, to the fact that I had the privilege of spending my youth in this wonderful state of Wisconsin.

My subject, relating to the clinical treatment of stomach diseases from a surgical standpoint, is of such vast extent that it is quite impossible to cover it thoroughly; so that in the short time that I will occupy your attention, I will simply attempt to touch the high points, the points of especial importance in this subject.

To begin with, we must bear in mind that the subject of surgical treatment of stomach diseases begins where the medical treatment ends. There has been much controversy between the medical and the surgical profession regarding this subject, principally from the fact that the surgical part of the profession does not come in contact with the successful part of the clientele of the medical man. It is only the unsuccessful cases that we have to handle. Moreover, the opinion which has frequently been impressed by the medical side of our pro-

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fession concerning the unsuccessful nature of the surgical treatment, is due to the fact that only the unsuccessful cases of the surgeon again revert to the medical man. So that we must bear this fact in mind in order to come to a just conclusion regarding the merits and the indications for both of these forms of treatment.

Before we consider at all the subject of surgical treatment of diseases of the stomach, we should bear in mind some anatomic and physiologic facts. We must be certain that there is something mechanically and physiologically wrong—very decidedly wrong—before we undertake the surgical treatment of diseases of the stomach.

This portion of the human body more than any other portion is a simple machine, which must do certain things mechanically and certain things physiologically in order to do them well.

We must have, in the cardiac portion of the stomach, two definite conditions: we must have a favorable condition for storing a reasonable amount of food; we must have a favorable condition for mixing with the juices of the stomach the various components of the foods. So that this portion of the stomach must be a good storage cavity, and it must be a good mixing apparatus. In order to be a good storage cavity this portion of the stomach must have the proper form. In order to be a good mixing apparatus, it must have its muscular apparatus in a good condition.

We have in the pyloric portion of the stomach a grinding apparatus, which takes care of the food after it has been properly mixed, and which reduces the food to a proper condition for the remaining portion of the digestive apparatus.

This is the hard working portion of the stomach, and the portion which is most likely to get into difficulty from the fact of its doing the important work of the apparatus.

Then the next point is the pylorus proper, the portion which makes it possible for the food to be properly mixed and properly ground before it passes on—the watchdog of this apparatus, the part that sees to it that the rest of the machine does its work well.

Then we have here a portion which is beyond the stomach, namely, the portion composing the beginning of the small intestine, the duodenum, which in fact is really a portion of the stomach. It is the mixing apparatus again, not of the food parts and the gastric juice, but of the food as it has left the stomach and mixed with the pancreatic and biliary fluids.

We must bear in mind that, whatever treatment we apply to stomach diseases, we must preserve, if possible, these conditions that

I have mentioned. To work well a stomach must contain these mechanical and these physiological conditions. If the stomach does not contain them, then our apparatus is not as good as it should be.

Bearing in mind these fundamental facts, it is plain that a diseased stomach which has recovered without any surgical interference from all of these conditions is a very much better stomach than if it has been interfered with. No matter how perfectly you perform your surgical operation, you can never to a full extent reclaim all of these conditions. Supposing you perform a gastro-enterostomy: you in that way impair the storage qualities, the mixing qualities, the grinding qualities of the organ. And then again, as to the duodenum: supposing you excise the pylorus—you remove from this mechanism the duodenal portion of the mixing apparatus and leave it mechanically and physiologically impaired. We must bear in mind primarily, that if it is possible to return a diseased stomach to a state in which all these conditions are present, then we have accomplished the very best that can be done.

There can be no doubt that in this portion of the human body as well as in every other portion, there is a natural tendency to repair; no matter what accident happens to any portion of the human body, there is always a tendency toward a condition of repair. So it is a known fact that many of the slighter injuries are corrected without the fact being known that they have existed.

We must not imagine that the moment there is something wrong with the stomach we will have to repair it, because, from the nature of things there is this primary tendency towards repair.

Having borne these facts in mind from a clinical standpoint, we can all recall an endless number of cases in which some portion of the function of the stomach was severely impaired, and in which by supplying proper hygienic and dietetic measures to your patient, the repair has taken place to such an extent that it would be impossible to demonstrate at autopsy in case of death from any other cause, that there had been any impairment present in the stomach.

We must not fail to bear in mind that so long as these conditions can be restored by dietetic or hygienic or medicinal measures, we must not think of treating the stomach in a surgical way. It is only on the other side of this condition that we must begin to think of surgical treatment.

The surgical treatment, aside from that which deals with malignant growths (which I will simply incidentally touch upon, because it would take an entire morning to consider that subject alone), must deal with conditions which cannot be removed by hygienic, dietetic

or medicinal treatment, and from which the stomach cannot be returned to the normal without surgical interference.

The condition which we have to deal with primarily and upon which the other conditions all depend, is an obstruction of the pylorus. I have mentioned the fact that this is the overworked portion of the stomach; it is most exposed to injury and is most likely to be subjected to disease; and it is the obstruction at this point which must lead virtually to all of the surgery of the stomach, with the exception of that which is performed for the relief of malignant disease.

The obstruction primarily interferes with the storage of food in the stomach. Obstruction can occur from several closely related causes. It may be an obstruction which primarily is simply due to irritation and a consequent contraction of the circular muscles in this portion of the stomach; so that the food is simply held there through a spasmodic condition of these muscles. This may result from or it may accompany an actual lesion of the mucous membrane, and ulcer. Then this ulcer may stimulate the contraction and exaggerate the condition again; or it may result in an induration around the ulcer, and in that way make an actual mechanical obstruction; or later on this ulcer may heal and cause a cicatricial contraction of the pylorus, and in that way there may result an obstruction, permanent in character.

The stomach then being in a state from which it cannot be restored to normal, we have the following conditions: The moment we have an ulcer at this point, nature provides a protection for this surface. For this purpose the mucous membrane of the stomach secretes a protecting mucus. This mucus has two advantages, first, it adheres to the surface; the second advantage is its smoothness and its effect as a lubricant. But together with these effects it has the bad effect of covering the food and making it inaccessible to the normal digestive secretions of the stomach.

So that here we have the beginning of a vicious circle: we have an injury; we have its protection by the mucus, we have the necessity of an increase in the secretion of the gastric juices to dissolve the mucus, and in this increase of secretion we have the very well known symptom of hyperacidity of the gastric contents. Then we have the next step in this vicious circle, the physiological secretion of a great amount of free hydrochloric acid, which in turn acts as a greater irritant upon the ulcer in the stomach; this in turn increases the obstruction, and we have one of these features following the other in the form of a vicious circle.

Again, we have another physiological provision in the form of an hypertrophy of the muscular system. The food will have to be more thoroughly mixed, so that we find as a matter of fact at this stage an hypertrophy of the muscular structures, and this hypertrophy secures this increased mixing; and it provides the power, the force, for carrying the food out of the obstructed pylorus.

But in every portion of the body in which we have the condition of obstruction, where we have a compensating hypertrophy, obstruction of the aortic valves, or obstruction of the neck of the bladder—indeed, wherever we have this condition, unless by good fortune and good treatment this obstruction is relieved,—this hypertrophy must in time result in non-compensation and consequently in dilatation, and there again we come to a further element in our vicious circle.

We now have the stomach dilated more and more until it no longer has practically a vertical position as demonstrated by Cannon and Blake. This vertical position disappears and you have a sacculated condition, and this sacculated condition naturally increases the obstruction. So we again have a further element of the vicious circle established. When this condition has become established from the causes mentioned, we have a still further element in this vicious circle in the form of residual contents of the stomach. You know that if we have residual bile in the gall bladder, or urine in the urinary bladder, or residual fluid in any cavity of the body, this fluid very soon becomes seriously infected; and at this time you will find that this residual fluid will become a decomposing mass in the stomach.

Then the food that is placed in the stomach is no longer placed in a clean cavity, but it is placed in decomposing fetid material, comprising the residual contents of the stomach.

So that there we have the element of actual malnutrition, because now the patient no longer is able to get proper nourishment out of his stomach contents. When this has once occurred it is but very rarely possible for the primary conditions which I have mentioned, to be re-established. The patient at that time is practically past the possibility of relief through internal or dietetic or hygienic measures.

I wish to emphasize the importance of hygienic measures. Every one remembers some case or other of almost hopeless stomach disease in a person of sedentary habits, overworked mentally, who goes out on the plains and comes back with the best stomach in town. So I wish to impress the importance of bearing in mind not only dietetic and medicinal, but also hygienic measures.

We have then at this point a stomach which is hopelessly ruined. After having tried all of these masures we find that our stomach is still in this condition. At this point the condition may be accompanied by the presence of an open ulcer, or the ulcer may have healed and we may have a cicatricial obstruction at this point.

If the ulcer is still open, we have a number of very definite complications to fear, besides the malnutrition, the discomfort and the disability of the patient. We have then to consider the possibility of perforation of this ulcer and immediate sudden death of the patient as the result of the perforation. We have also to consider the possibility of the patient's losing his life by the loss of a great amount of blood suddenly, or by continuing hemorrhage. We must consider the possibility of having implanted upon this ulcer, a carcinoma, a condition which is not uncommon and which in my experience in a vast majority of cases succeeds the presence of an ulcer of the stomach.

Right here I wish to impress upon you the fact that in all intra-abdominal conditions, in this condition as well as in all other conditions, in pyosalpinx, appendicitis, extrauterine pregnancy, gall bladder disease— the diagnosis has been perfected to a reasonable extent only as the result of the operation. When operations were begun for each and every one of these conditions, the views which we held were extremely vague. I personally remember the beginning of the surgical activity in all of these branches; and I remember how absolutely vague the men with the greatest diagnostic skill were in their ideas concerning probable findings in any given case; and it has only been from the fact that as a certain diagnosis was made, and it was either proven or disproven by a surgical operation, we have been able to come to a reasonable degree of certainty in our diagnosis. So that both the surgeon and the internist should in every instance in which the abdomen is opened for the relief of a condition of the stomach, be present at the operation, and should determine whether the ideas formed concerning the conditions to be found are correct or incorrect, because upon the ability to diagnose them properly will depend our ability to treat these cases properly later on.

The indications for operation in gastric ulcer and its results are primarily for the purpose of relieving pain. Many of these patients suffer so intensely from the presence of this symptom—suffer physically, I mean, not through disability alone—but suffer physically to such an extent that they are entitled to relief; and relief can come only by overcoming this condition of obstruction. So that in case the pain is extremely severe, if other means have been exhausted, then I believe that this is one of the indications for operation.

The next indication is to prevent the possibility of the loss of life or competency on account of the loss of blood, either from acute or secondary hemorrhage.

The operation is further indicated to overcome the secondary condition of obstruction which has already been established, to prevent loss of blood, and loss of strength due to the fact that the patient cannot digest his food, as well as to relieve uncontrollable pain; and to prevent the very distressing condition of contracture at this point and the formation of an hour glass stomach.

It is indicated again in these cases of extreme dilatation with decomposing residual stomach contents, and advanced condition of starvation.

It is indicated in cases in which there is threatened perforation, in cases in which the adhesions have resulted in a painful condition, in a condition of increased obstruction, and in a disability of the patient, and further on it is indicated in the presence of beginning carcinoma.

In advanced carcinoma at the present moment it is difficult to tell whether an operation is of benefit or of harm to the patient. It is difficult to tell in case the carcinoma is advanced whether it is not better to keep the stomach in a clean condition by repeated gastric lavage and the use of easily digested food and the employment of rectal feeding.

I will speak for a moment on the subject of diagnosis. To begin with I will say that there are a number of refinements in diagnosis which have a considerable value from a confirmatory point of view. If they confirm the diagnosis you have made from a careful study of the history of the case and from a careful physical examination, then they should be considered; but if they have a negative bearing, if they disprove your idea, then you are either a poor diagnostician, or you should permit yourself to forget them. Pay absolutely no attention to any of these refinements if they are negative, because the greatest blunders in diagnosis have been made where negative diagnoses based upon any of these refinements have been considered.

I have in my own experience encountered a large number of carcinomata which were diagnosed from physical examination and from the study of the history a year before they were confirmed by these other forms of diagnosis, and this entire year was wasted; thus the patient lost the only chance he had of living for a reasonable period of time as the result of an operation, because of the weight that was placed upon the negative evidence taken from these refinements. I refer to the chemical examination of the stomach contents,

and to the giving of large doses of bismuth and taking a skiagram of the body to determine the location of the carcinoma, or the ulcer; I refer to the blood examinations; I refer to all of these refinements, as well as the examination of the urine with reference to stomach diseases. If it is positive you have that additional element to build upon; if it is negative you must pay no attention to it, because it is only a very small element in your consideration at best.

I will simply say regarding the diagnosis, that the history of the case must have a definite bearing towards your diagnosis.

The physical examination in case of a gastric ulcer locates the pain, in almost every case, in the median line; it refers the secondary pain to the back. Those are important points. Now in addition to this, in the presence of ulcer or carcinoma, you can practically always by continued examinations for a week or two or three or four, demonstrate the presence of blood macoscopically or microscopically; or it will be found in chemically demonstrable quantities in the feces. So that bearing those points in mind, together with the elements of obstruction, we have the foundation for our diagnosis.

To that of course must be added clinical experience. You must have made your diagnosis over and over again and proved or disproved it at the operating table—not only at your own operating table, but preferably at the operating table of some one else with whom you have worked.

The element of differential diagnosis I will go into for just a moment. The condition which is most commonly mistaken for gastric ulcer, is the presence of gall-stones. Here we must bear in mind that a differential diagnosis is not of very much importance, because the diagnosis of either of these cases in the hands of a competent surgeon means an operation, and the diagnosis is exceedingly simple at the time of the operation.

The differential diagnosis, however, is almost always simple. It is very seldom that we make a mistake in diagnosis between these two conditions, because in the one we have the point of tenderness over the median line, and in the other case we have the point of tenderness over Mayo-Robson's point between the seventh rib and the umbilicus. In the one case we have the referred pain in the back, either in the median line or to the left; in the other case we have the referred pain to the right around the tenth rib.

Of course there are complicating conditions. We have gall-stones together with a duodenal ulcer. In that case the pain will not only be referred to the right, but it will be referred straight back.

We may have it complicated with pancreatitis. Then again the pain will be referred to the back, and it may even be referred to the left. So that we may have all these complications, and in fact these combinations are not at all uncommon.

The presence of duodenal ulcer can usually be diagnosed with a considerable degree of certainty from the fact that the pain is practically always behind the right rectus abdominis muscle. The pain is practically always more severe when the stomach is empty, because then the pylorus is open and we have the irritating gastric fluid entering the duodenum and giving rise to the irritation there. The differential diagnosis from renal colic is very well known—the radiating pain downward, the pain beginning behind, reaching forward and extending downward in the oblique direction. The pain of pancreatitis has already been mentioned. The presence of volvulus has a number of times given rise to diagnosis of perforated gastric ulcer. But as both of these indicate operation (the volvulus more intensely), here again you have the same favorable condition from a surgical standpoint. The presence of intussusception, the presence of ruptured extra-uterine pregnancy, ovarian cyst with twisted pedicle, peritoneal adhesions with strangulated intestine, are all conditions which have been thoroughly described so frequently that I need not occupy your time with them.

One condition which has not been considered is the presence of an adhesion of the omentum low down in the pelvis, causing a dragging upon the stomach and in that way forming a sacculated condition and resulting obstruction. The omentum being attached to the stomach naturally has this effect.

An important differential diagnosis in connection with surgery of the stomach refers to the neurotic stomach. The presence of neurasthenia with symptoms referred to the stomach, as is the case with neurotic conditions elsewhere, is a difficult subject to handle. In a considerable number of cases this neurotic state is due to the stomach condition, it is the result of the condition which I have described here, and in that case removing the cause removes the neurotic condition; but in a very large number of cases the condition is the reverse. The stomach condition is due to the neurotic condition, and the less experience one has in a surgical way with that class of cases the greater will be the surgeon's happiness. So that here we must be extremely careful in our differential diagnosis.

I will not detain you longer. I simply wish to emphasize the fact that we must look upon the stomach as a machine, and then we must

try to restore that machine to as nearly normal working conditions as possible. I will not mention anything about operation, except that it should be done at the very lowest point as brought out by Mayo's excellent work.

I am exceedingly obliged to you for your attention during this terribly hot day.

ORIGINAL ARTICLES.

APPENDICITIS AND THE DIFFERENTIAL DIAGNOSIS OF APPENDICITIS IN CHILDREN.*

BY FRED E. SUTHERLAND, M. D.

JANESVILLE.

Of all the conditions and complications that arise in children, diseases of the viscera of the abdominal cavity are the most difficult to diagnose. A great number of the diseases resemble each other very closely. The symptomatology of appendicitis is the same in children as in adults, except that pain is very often absent in the former. It may be emphasized that in the beginning of the disease, when the tumor, and perhaps also the other symptoms, are not sufficiently characteristic, especially as the child is generally incapable of localizing the pain, incorrect diagnoses are not infrequently made, and prove momentous to the patient. Indeed, if dyspeptic symptoms predominate, such cases are only too often diagnosed as simply gastric catarrh with constipation, and are carelessly combatted with cathartics.

It is therefore important always to carefully examine the region of the vermiform process whenever a child complains of severe pain in the abdomen.

Appendicitis is rare in infants, but it does occur. And at these times we must have a clear cut idea of the disease and other diseases in which the symptoms closely resemble appendicitis.

Among these we find: colic, acute intestinal indigestion, intussusception and intestinal obstruction, psoas abscess, pleurisy and pneumonia, strangulated hernia, enteric fever, iliac abscess on the right side, hip joint disease, stone in the kidney and nephritic colic, peritonitis and tubercular peritonitis, herpes zoster.

*Read before the Central Wisconsin Medical Society, Madison, July 31, 1906.

The cardinal symptoms of appendicitis are pain, tenderness, nausea and vomiting, rigidity of the abdominal muscles overlying the appendix.

As a rule an acute attack begins with sudden pain located in the vicinity of the umbilicus, but extending over the entire abdomen, more marked in its upper portion, hence the little patient complains that he is suffering from stomach ache (gastritis).

The pain is spasmodic in character, subsiding and reappearing in what has been described as a wave-like manner. There is an accumulation of gas, and as this moves about the paroxysms of pain are increased. Within twelve to twenty-four hours the symptoms become more and more localized in the right inguinal region.

From the beginning of the attack and throughout the duration of the acute disease, there is tenderness upon pressure over the location of the appendix, if the pressure is made with one finger. The appendix is not always in the same location, but it is much more commonly underneath McBurney's point, consequently one can count upon finding tenderness at that point.

The localized congestion in the vicinity of the ileocecal valve prevents the natural passage of gas and intestinal contents from the ileum into the cecum; this in turn interferes with the physiologic process of digestion, and as a result we have nausea and vomiting. We have the same reason for return peristalsis that is present in any other form of mechanical intestinal obstruction.

From the standpoint of diagnosis but little dependence can be placed upon the patient's temperature. It is a fact that unless the patient is operated on early he is very likely to develop a temperature which may remain below 100°, or may reach as high as 105° or 106°. A very high temperature means a grave condition, but a low temperature does not insure the slightest degree of safety. The tongue is usually furred and moist, seldom dry. Constipation is the rule, but the attack may set in with diarrhea, particularly in children.

Upon inspection, the abdomen is at first not abnormal; there is no distention, and the iliac fossae look alike. On palpation there are usually present from the outset two important signs, *viz.* great tension of the right rectus muscle, and tenderness or actual pain on deep pressure. The rigidity of the abdominal muscles overlying the appendix is of the greatest importance because it enables us to make an early differential diagnosis. Firm, deep and continuous pressure with one finger over McBurney's point will cause pain of the most exquisite character.

Aside from these one usually discovers a swelling in the vicinity of the appendix. This is due, at the beginning of an attack, to the placing of the omentum around the diseased organ and the small intestine around the omentum, and to the contraction and consequent thickening of the overlying muscles. Later on there is a still further increase due to the edema which occurs, and still later to the accumulation of pus, if the process progresses to suppuration.

Having freshened our minds on the symptoms and a few general conditions of appendicitis, we will now endeavor to differentiate some of the conditions closely resembling this disease.

ENTERALGIA (Colic). Colic is a very painful spasmodic contraction of the intestinal muscular structure. It is usually so typical that it can be easily recognized. In severe attacks there is contraction of the features, a loud paroxysmal cry, subsiding for a few moments and then beginning with renewed intensity, drawing up of the lower extremities, and in the male contraction of the scrotum. The abdomen is found tense and hard. With the expulsion of the gas the symptoms subside at once and the child falls asleep. If the attack is very severe we will find prostration, cold extremities and perspiration.

Colic is distinguished by the absence of localized tenderness, tumor and fever, by its short duration and by the fact that the pain is less intense. Severe colic with fever in children over three years old should, however, always be regarded with suspicion.

ACUTE INTESTINAL INDIGESTION. In cases of sudden onset the temperature is invariably elevated—infants, 102°-105°; older children, 100°-101°. This high temperature does not continue. In twelve or twenty-four hours it subsides to normal or nearly so.

The local symptoms are colicky pain, tympanites, and diarrhea. Pain is indicated by severe screaming, crying spells, great restlessness and drawing up of the limbs.

The constitutional symptoms are fever, prostration and various nervous disturbances. In older children the pain precedes the diarrhea by several hours and is located in the region of the umbilicus.

To differentiate it from appendicitis is very difficult at the onset, and it may be impossible for twenty-four hours. It is impossible to recognize an attack of acute intestinal indigestion until the diarrhea begins. However, the pain of indigestion is rarely so severe, while the fever is higher.

It should be remembered that the pain in appendicitis is not always localized, nor is a tumor always in the right iliac fossa. The presence of pain, vomiting and localized tenderness, and the greater severity of the constitutional symptoms, indicate appendicitis.

INTUSSUSCEPTION AND INTESTINAL OBSTRUCTION. The patient is taken suddenly with severe pain and vomiting, the pain recurring paroxysmally every few minutes. Vomiting is persistent and uncontrollable, the first being contents of the stomach, and afterwards bilious; it may go on to projectile and stercoraceous vomiting.

There may be one, two or three loose fecal stools. If anything passes after this it is simply blood or blood and mucus.

The general symptoms are those of great prostration or even collapse, pallor, feeble pulse, apathy and normal or sub-normal temperature. The abdomen is relaxed, later there may be tympanites.

It is diagnosed from appendicitis by the fact that the pain is anywhere in the abdominal region, though usually about the umbilicus, and instead of the elevation of temperature it is normal or even below normal. There is not only constipation, which is absolute in these cases, but no passage of gas occurs, even where, as in appendicitis, there is usually much gas and an occasional action of the bowels from the use of enemata. The tumefaction of appendicitis is always in the right iliac fossa, while the distention of intussusception appears much more like a tumor and is located anywhere in the abdominal cavity, more commonly in the median line on the left side.

PSOAS ABSCESS. This condition should not be confused with appendicitis. One should carefully inquire into the history and symptoms of the case (Lumbar disease). The first symptoms here are pain and lameness, referred to one extremity. In addition to this there is a tilting of the pelvis to one side, and sometimes quite distinct lateral curvature of the spine.

The pain is usually not severe and may be felt in the groin, in the loin, in the thigh, in the buttocks or hypogastrium. The gait and attitude are very characteristic. Throwing the shoulders well back, the patient walks stiffly with short steps, holding the spine with great care. He rises from the floor awkwardly and with difficulty. There is no great deformity until the abscess appears, then it is very apparent. When tubercular lumbar disease is suspected, deep palpation of the iliac fossa should be made to discover the psoas abscess.

PLEURISY AND PNEUMONIA. These have been mistaken for appendicitis when located at the base of the right lung. There is severe localized pain in the iliac fossa, caused evidently by the pleurisy involving the lower intercostal nerves. This is easily differentiated by a thorough examination of the lungs, and the absence of abdominal symptoms—except pain.

STRANGULATED HERNIA. All mechanical obstructions of the intestines will lead to paroxyms of intestinal pain. In all, the obsti-

nate constipation must arouse suspicion regarding the true nature of the complaint. To detect hernia a local examination is required, and therefore a careful search at the usual seat of this affliction ought to be made in every instance of severe protracted colic. Lives have been lost in consequence of the neglect of this simple precaution.

ENTERIC FEVER. To differentiate an attack of typhoid fever from appendicitis is at times exceedingly difficult for the first day or two of the illness; but later the range of the temperature characteristic of the former disease will make the differentiation easy. The Widal reaction is of but little positive assistance here, as it is present only late in the disease; if present, it might be impossible to know that it was not produced by a former attack, or, if absent, that it would not subsequently develop. The diagnosis between these conditions is rendered still more difficult by the fact that both may be present at the same time, and the perforation that takes place may be from a typhoid ulcer. Again, typhoid fever will often present very irregular symptoms, and occasionally the diagnosis cannot be positively made until the abdomen is opened. This is especially true where the patient has not been under previous observation, or where no particular symptoms have been noted until perforation has occurred with the sudden development of its symptoms. In such a case no satisfactory opinion can be formed until the abdomen is opened and the site of the perforation found. Fortunately, the positions of the perforation in the two diseases are not far apart, and an incision along the outer border of the rectus muscle will give satisfactory access in either case; the perforation may then be surgically treated whatever its cause may have been. The point—tenderness of appendicular involvement—is of especial value in this differentiation, and is very unlike the general regional tenderness of typhoid fever.

Typhoid fever has its petechiae, diarrhea, hemorrhages, regular gradation of temperature and its more continuous course. Furthermore, the area of tenderness is greater, the pain and crepitus being somewhat to the left and above that of appendicitis. Constipation is more often the condition in appendicitis and with the exception of the umbilical pain that occurs in some cases, the pain is confined to McBurney's point and immediate vicinity.

ILIAC ABSCESS ON THE RIGHT SIDE. Iliac abscess arises from lumbar caries, the swelling lying in the iliac fossa and pointing above Poupart's ligament. When such is the case it is differentiated from appendicitis in the manner of a psoas abscess. When it occurs from appendicitis it is in the latter stage of the disease and there should be no difficulty.

HIP JOINT DISEASE. Hip joint disease may be confounded with chronic but rarely with acute appendicitis.

In hip joint diseases the inclination of the pelvis and the inability to move the joint normally furnish trustworthy points of distinction.

STONE IN THE KIDNEY AND NEPHRITIC COLIC. Nephritic colic is produced when a stone of any considerable size passes from the kidney to the bladder. It is characterized by sudden attacks of severe sickening pain in the loins shooting down the thigh or into the testicle. There may be vomiting or even collapse. The urine is passed frequently in small quantities and contains blood. The symptoms quickly subside when the stone reaches the bladder. It is here easily diagnosed by the x-ray. In well marked cases of kidney stone there is tenderness, pain localized over the affected kidney radiating to the bladder, perineum, and even to the opposite kidney. There may be irritation and contraction of the testicle. Upon examination of the urine after exercise we may find blood, pus and epithelial cells from the pelvis of the kidney.

These are differentiated from appendicitis by absence of bowel disturbances, tumor, and its short duration.

PERITONITIS. The onset is nearly always abrupt with fever and vomiting. As a rule the temperature is high—103° to 105°. Vomiting may occur only at the onset, but it often continues and is of a greenish material. There is severe pain which may be general or localized. The abdomen very soon becomes smaller and tympanitic. The distention is uniform, may be irregular, but is a constant symptom. There is tenderness on pressure and marked rigidity of the abdominal walls. The bowels usually are constipated, but there may be diarrhea. The urine may be retained or frequent micturition may exist.

The symptoms from the beginning indicate a severe disease. The pulse is small, rapid and compressible. Prostration great; face is pinched. The mouth is drawn and features indicate great pain. In severe cases there may be hiccough, cold extremities, clammy perspiration and collapse. The mind is usually clear.

It is diagnosed from appendicitis by its rapid onset, general distention of the abdomen, soreness generally, absence of tumor on the right side. Both rectus muscles rigid. Later, if a severe case, there is a sufficient amount of fluid present to give the sensation of fluctuation.

HERPES ZOSTER. Herpes Zoster of the 12th dorsal nerve may resemble appendicitis early. Later we have the severe neuralgic pain,

characteristic eruption, differentiated from appendicitis by absence of tumor, bowel disturbances and fever.

An abscess in the abdominal walls furnishes very many of the signs of abscess around the appendix. The most trustworthy point of distinction is that the former moves with the abdominal wall and is unassociated with intestinal irritation.

CONTRACT AND CLUB PRACTICE.*

BY WM. H. SAUNDERS, M. D.

KENOSHA.

I have been requested to present to you today the subject of Contract and Club Practice. This subject has not claimed very much attention in this region, as it has never prevailed to any great extent here. The various attempts that have been made to establish it have been short-lived, owing to its naturally unsatisfactory character, and to the changes incident to a rapidly developing country. Its development in the main has progressed along two lines: a contract for medical attendance between the physician and a promiscuous body of citizens, church organization, or fraternal society, and the like; and contracts with various industrial organizations, corporations, municipal bodies, etc. As contracts for medical attendance that are not in violation of statutory laws are perfectly legal, we are concerned only with their ethical bearings.

From the earliest beginnings of medical practice the leaders of thought in the profession have endeavored to hold aloft the character of the Christ, whose soul was permeated with the spirit of the Golden Rule, to whom the task of soothing the troubled nerves, relieving the pains and binding up the wounds of his fellow-beings was a source of unalloyed happiness, as an ideal standard to which the physician should strive to conform as far as possible in his practice.

While the ranks of the profession were recruited from a select class it was far easier to secure an approximation to this standard, and many noble characters have inscribed their names on the pages of history; but when, during later years, there was a promiscuous rush for the profession by all classes and grades of people, without any attempt at previous preparation, the influence of this high ideal was lost upon the large body, who adopted the standard of modern business

*Read before the Second District Medical Society, at Kenosha, Wis., August 9, 1906.

methods with the motto, "Force your own interests vigorously to the front, and let the devil take the hindmost".

Actuated by this spirit they have employed many devices and methods to enhance their success which have not met the approval of a majority of the profession. Among these is the subject of this paper —Contract and Club Practice, which might with propriety be restricted to the simple term Contract Practice, as it is essentially the same thing.

Let us consider the object and character of contract practice in its various forms, and then we shall be better able to judge of its desirability.

The object of the physician, of course, is to increase his clientage by forcing or drawing to himself the practice of a body of people that has previously been distributed among other physicians; thus, what he gains, the others lose. In order to do this an advantage has to be offered, which almost invariably is a cut price. Cut prices are not usually remunerative, but the physician expects that this means of a more rapid extension of his acquaintance will gain him a continuance of practice at better rates after the expiration of the contract, or bring in new outside business at better rates. When his contract is with societies the price is usually so low that the only gain lies in the incidental advantages that this means of extending acquaintance offers. Sometimes the physician succeeds in inducing a clergyman to rope in his flock for the physician's benefit by an offer of free service to the pastor's family, or other consideration. This perhaps is the least objectionable of all forms of contract service, for in such cases no attempt is usually made to cut rates.

The service for industrial corporations is almost wholly surgical. Here the form of engagement varies with the different factories. In one all cases of injury are referred to the surgeon appointed by the company, and payment is refused to any other surgeon for service, no matter what the emergency. If the injured party refuses the attendance of the regular appointee, he must pay his own bill. Another corporation contracts with a Casualty or Accident Company that pays only for first dressing. Another pays for services in cases where it is satisfied the injury was not due to carelessness of the individual; where the injury was the result of his own carelessness the surgeon must take his chances of payment by the workman, and usually this falls to the loss account.

What shall be said of our municipal corporation, representing a population of over twenty thousand that is rapidly increasing, which

insists on reducing the contract price for attendance on its paupers to one hundred and fifty dollars a year, including in that the obligation to furnish both medical and surgical attendance, with all medicines and surgical supplies necessary.

The impudence and insult to the medical profession are so stunning that words fail me to properly characterize it.

Let us now consider the results of this kind of practice to the contracting physician, to his brother practitioners, and to the public.

Every physician knows the impossibility of estimating accurately the amount of sickness that an individual or even a group of individuals will experience during a year, hence the reluctance shown when asked, as he occasionally is, to name a sum for which he will treat a patient during sickness.

The average experience of the profession has fixed the rates for attendance at the lowest fairly remunerative figures; when, therefore, a physician attempts by contract to secure the exclusive practice of a body of the people, he is obliged to work for less compensation than his brothers, and in addition incurs the loss of the good will of those physicians whose patients he has alienated, and this he can ill afford to do.

He says to his patients: I place a lower value upon my services than my medical brothers do upon theirs. Not infrequently they take his estimate of their value as the basis of their own. If, after a time, he achieves satisfactory compensation for his labor, it is at the expense of much unnnecessary work and sacrifice.

As a matter of experience these contracts are usually shortlived, and the ultimate result is a reaction unfavorable to the standing of the physician.

This kind of practice also causes trouble for all physicians wherever it prevails, unsettling values, leading many to treat physicians like hucksters with marketable goods to sell, which they hope to get cheaper than the usual price by dickering. They will demand that all physicians accept payment for their services at the lowest rates that service has been furnished them by any one.

In the absence of any state law making manufacturers liable for injuries to their employees while engaged in their work, advantage is often taken of the physician. Notified beforehand by the manufacturers that they have insured their men in a Casualty Company that will be responsible for the first dressing only of any case of injury, the surgeon has no claim upon the manufacturers for services rendered the men employed.

Lured by the prospect of having his compensation insured by apparently a responsible party at current rates at the start, the surgeon accepts the cases, hoping to secure from a majority at least of the patients payment of the balance for further attendance, and for the surgical material furnished. After months of delay the Casualty Company pays its proportion while the balance is largely paid by promises, as might be expected in dealing with a class so largely irresponsible and constantly changing. In this ingenious manner there is shifted from the manufacturers to the medical profession a large share of the burden of care and expense for injured factory employees.

Contracts in some factories are kept secret, which would naturally lead to the inference that they were not in accordance with the ethics of the profession.

Viewed from any side it fails to appear how Contract Practice in the long run is advantageous or commendable, and it certainly exerts an influence tending to drag down the standard of medical practice to a mercenary basis.

The physician surely has enough to endure from the misunderstanding, misjudgment, selfishness and injustice of the public, and no physician ought to add, by business methods that are considered discreditable by the profession, aught that will detract from the respect and dignity that should characterize its standing with the public. To physicians themselves is largely due the blame for the loss of professional standing and influence with the public.

Let each add his influence to regain the lost ground. I commend these thoughts to your further consideration.

INFANT FEEDING.*

BY JOHN BINNIE, M. D.

POYNETTE, WIS.

The artificial feeding of infants is becoming of more importance every day. Many mothers are unable to furnish sufficient nourishment either in quantity or proper quality. This condition arises from various causes, as general poor health, constitutional disease, and acute febrile disease. I have seen a few apparently healthy mothers whose mammary glands entirely failed to assume their natural function, and this had been so in successive instances in these women.

*Read before the Central Wisconsin Medical Society, Madison, July 31, 1906.

These mothers may try to increase the mammary secretion by forced feeding of the best known foods or remedies supposed to have the power to increase the lacteal secretion. Although such patients may gain in flesh and possess a healthy appearance, the lacteal secretion diminishes or ceases entirely.

The cause of this condition in these otherwise healthy mothers I am unable to explain, but it is a condition that is becoming more frequent than in former years. I deplore the fact that the condition exists, for both mother and child, as the natural way of nourishment is without doubt the best when the mother is capable and normal in all respects. In former years artificial feeding was regarded as, and truly was a very poor and dangerous substitute for infant nourishment. Notwithstanding the above facts, with our experience born of frequent necessity and the advancement of our knowledge in such cases, we may safely say an infant can be nourished as successfully by artificial feeding with cow's milk as at the average breast. In many cases it is much better for both mother and child, and for the following reasons: it saves the weak and debilitated mother from the exhaustion incident to nursing, thereby lessening the danger where there may be a tendency to the development of tuberculosis. At the same time it lessens the infant's risk of the inheritance of any disease from the mother. One thing to be remembered is that these infants are very often below par before the artificial feeding is begun. No child should be allowed to nurse long at a breast that is positively insufficient for its proper support.

The rule that has given me the best results for infants at birth or soon after, is: one part of cow's milk, and three, four or even five parts of sterilized water with a little sugar (generally common white sugar); sugar of milk might be better. These proportions are used for the first 3 or 4 weeks. Great care should be taken not to use too large a proportion of milk or sugar to begin with. In some conditions the addition of a little lime water or soda to the food may be of great benefit. The source of the milk supply may have to be changed, especially if the milk from one cow only is used. There is a great difference in cow's milk. I have a case on hand at present where it seemed necessary to change some four times before complete success was reached. Perseverance, with judgment, will succeed in almost every case. Once having attained the proper proportions for the individual case, the proportions of milk to water are to be increased very gradually, always observing the condition of the child. By the fourth to the sixth month, according to the child's condition, equal parts of milk and water may be used, by the end of the first year pure milk

may be given, but I generally advise one-fifth water even then. My experience is that children and sick patients do better on diluted milk. It is always easier to increase the strength of the food to suit the case than to cure the disorder produced in the digestive system by too strong or too great a quantity of nourishment.

Quantity is important as it also varies according to the case. At birth about two ounces at a feeding will be found a fair average. When these matters are well regulated the child becomes quiet and gives very little trouble. The important thing now is that everything connected with the feeding must be scrupulously clean and the milk always fresh and sweet. Regularity in feeding prevents trouble and lessens labor. The commonest cause of disturbance is too great a proportion of milk and sugar and irregularity in the quantity and times of feeding.

I have said nothing of the milk of other animals, nor of wet nurses. In this part of the country wet nurses are out of the question; they cannot be procured. The various artificial foods on the market are scientific preparations, and try to take the place of mothers' milk, but I have not found any of them as good as cow's milk. Physicians in the larger cities have to depend upon them more or less, as it must be impossible to procure milk in a perfect condition that has been transported several miles. I have had very little experience with the artificial foods. Eskay's food is doing well for a patient at present. Horlick's Malted Milk has not been satisfactory for continued use in young infants. I have thought it too sweet. The Nutricia Milk Company of Milwaukee, I would think dispenses a good milk. I have tried it in only one case and was pleased with it. I do not recommend these preparations until after the third month or later, and have always preferred Mellin's food; it has always served me well. I prefer it because it has more of the bone and muscle elements in it and has to be made with good fresh milk, so that I am able to retain the milk, at the same time replacing other foods.

Given the above conditions there need be no great mortality of infants. To succeed with cow's milk, it must be fresh and in perfect condition. I have preferred the milk from one cow, but this is not an absolute necessity if all the conditions are observed. We can have no fixed formulae, because every case is a law unto itself and has to be studied by itself. No two infants are exactly alike; in their systems there are peculiarities as to likes and dislikes, and what may agree with one, may be very injurious to another. Each case is to be managed by itself, and even general rules have their exceptions.

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EDITORIAL COMMENT.

THE TELEPHONE AND THE DOCTOR'S FEE.

In a recent editorial in the Cincinnati *Lancet-Clinic* attention was called to the decision of a European court in upholding a plaintiff physician's demand for remuneration for advice given by telephone. The judge argued that, even though advice be given by telephone, it is subject to the same rule that governs the physician's right to demand a fee for medical services however else performed. The Vienna medical council, it is further stated, is to consider the question, and will ask that its members demand a fee for services asked for and given in this manner.

The editorial further states that "many, if not most, physicians in this country charge for this service their ordinary office fee." Doubtless there are those who do charge fees for such services, but

we believe they are not so numerous as this statement would lead us to believe. That the physician is justified in making a charge equivalent to an office consultation fee, is not to be denied. The patient seeking such information or advice, unless he be reporting to the physician in accordance with instructions received, does so for one of several reasons: the illness may not be considered so serious as to warrant a physician being called—thereby avoiding, as unnecessary, an expense the patient may not wish to incur; he may be too busy or find it inconvenient to call on the physician at his own office or during office hours; he may be using this method in a deliberate effort to defraud the physician out of his legitimate quid pro quo. In any case, he is obtaining skilled advice, and is under the same obligation to pay for it, as if it were given in person.

We venture to say that there is hardly a physician who does not receive one or more messages daily calling for actual "long distance" assistance. Time and again have we paid an initial visit in a case of illness, and been permitted to follow the further course of the disease by daily telephone communications. The man who gives this assistance without compensation is foolishly guilty of an extravagant waste of capital.

"Long distance" holdups of this character are increasing in frequency as the popularity and number of telephones increase. This is an evil that can well be made a subject for consideration at society meetings. Concerted action, followed by publicity, will make clear to the laity the physician's stand upon this question. By asking to be paid for advice, however given, the physician is asking nothing that is not his due by every moral and legal right.

ANOTHER FRAUD EXPOSED.

Unmercifully flayed, branded as unjailed criminals, the vultures who have been feeding drug habitués with the poisons from which they sought relief, stand unmasked. Again must we express our gratitude to the man who has already done so much to expose medical frauds. In what is announced to be the last contribution in the series entitled "The Great American Fraud", in *Collier's Weekly,* Samuel Hopkins Adams takes as his text the methods of treatment employed by individuals and advertising concerns that exploit anti-drug-addiction cures. While we have, of course, been aware that dishonest methods were practiced in these institutions, and that victims were lured on by all sorts of snares, we are dumbfounded at the boldness with which their operations were carried on.

According to analyses made of a dozen or more anti-opium preparations, all contained morphine in quantities varying from 1/10 to over 2 grains per dose. Is it conceivable that there are men, graduated physicians, so villainous as to administer to a sufferer who is held in the tentacles of an awful abnormal craving and begs relief therefrom, the same poison, in different guise, in the hope of establishing an even greater hold upon him? Having become addicted to the use of the remedy (?), the patient is again at the mercy of the unconscionable scoundrels who held out to him the assurance that they were striving for his relief. The same drug addiction is thus assured, but instead of purchasing his supplies from the druggist, it is obtained under the guise of a remedy that satisfies the craving for the drug, from the deep dyed medical fraud.

Fortunately, the laws recently enacted will put an end to this villainous traffic. Inasmuch as all packages containing poisons must specify their character and dose on the labels, it is not likely that the patient seeking relief from a drug to which he has been enslaved, will take the same, even though it be clothed with the attractive verbiage of the "guarantee cure" kind of advertisement.

A SALT-FREE DIET IN SCARLATINA.

There has been considerable discussion lately regarding the advantages of a diet free from salt during scarlet fever, and interest attaches to certain comparative tests made by Pater. The patients in one group were kept on an absolute milk diet, the others were given bread, rice, potatoes, eggs, butter, sugar and milk, all without any trace of salt. It was found that the latter course was entirely free from danger and seemed to constitute a better prophylactic measure against nephritis than the exclusive milk diet. The initial febrile albuminuria which is often present rapidly disappeared under this regime. An increase in body weight was also observed and the variety of food presented was greatly appreciated by the patients. Convalescence was invariably more rapid and immediately succeeded the period of defervescence. The improved condition of the patient also favored resistance against secondary infections. This is evidently but another step in the more liberal dieting of certain classes of patients which has lately been adopted, and an exclusive milk diet is no longer considered by many to be the *sine qua non* of medical treatment in many of the febrile diseases, of which typhoid fever is another example.

AN UNREASONABLE DEMAND.

The JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, in its issue of September 22d, speaks editorially of the danger of catchy names as applied to pharmaceutical preparations. This is a propos of a fatal case of poisoning due to the administration of atropin where it was intended to give urotropin. The editorial writer offers as a solution the suggestion that names of proprietary articles be written out in full, so that for urotropin there be substituted "Hexamethylenamine (Schering)."

We cannot understand why, granted that it is an awkward word for physicians, it is "one that it seems will have to be adopted." Because an interne directed the use of atropin instead of urotropin? The adoption of such a silly and clumsy nomenclature would mean the additional burden placed upon the physician of demanding that he remember not only the chemical term, but also the name of the manufacturer of the article he prescribes.

There is no need to make more complicated a system of therapeutic nomenclature that already has intricacies enough. Simplify where possible, but don't ask—because an inexcusable error was committed by some one who should have known better—that we substitute for urotropin "Hexamethylenamine (Schering)", a name hard to remember and more easily confounded with other chemical terms than would be atropin with urotropin.

EMPLOYERS' LIABILITY IN FRANCE.

In the United States Consular Reports comment is made upon a new law recently passed, and soon to be put into effect in France. This law is interesting from the drastic nature of its provisions, and has an important bearing upon the relations existing between employer and employed. Prior to 1898, the rule was in vogue in that country, as elsewhere, that where liability of an employer—that is, negligence or fault on his part—for an accident to an employee, could be proven, compensatory damages could be recovered. Under this system it was found difficult at all times to establish proof of liability. Under the new law of 1906, compensation is awarded to an employee in every case of accident, whether it be due to negligence or mere chance. "The basis adopted for the assessment of this limited compensation was that of an equal division between employer and employed of the pecuniary consequences of every accident."

In case of fatal accidents, an annuity corresponding to 20 per cent. of the annual wages of deceased, is paid to the widow during her lifetime, and of 15 to 40 per cent. of the wages is payable to the children until they reach the age of 16; should they be left orphans, this may reach 60 per cent.

In case of total disablement, the employee obtains a life annuity of 66 per cent. of his wages, and if only partially disabled, he receives an annuity corresponding to one-half of the "loss of wage-earning power" caused by the accident. Thus, the courts have generally held that the loss of a leg is equivalent to a 70 per cent. "loss of wage-earning power", and in such case the annuity would be 35 per cent. Half the regular wages are paid for a temporary disablement, until recovery. All medical, pharmaceutical, hospital and funeral expenses are to be defrayed by the employers.

While under the old act only certain trades came under the disability law, the new measure includes all commercial enterprises with the sole exception of agriculture.

A further paternalistic feature is found in the fact that a small tax is to be levied on all commerce, the proceeds of which "will be used by the State for the formation of a fund to guarantee workmen in a certain measure against bankruptcy of employers or of insurance companies in which employers have covered their liabilities."

NEWS ITEMS AND PERSONALS.

George W. Davies, M. D., a leading physician of Waterloo, was found dead at his residence on Sept. 22d.

Dr. A. W. Akerly, of Milwaukee, has been appointed an assistant surgeon at the National Home for Disabled Volunteer Soldiers in Milwaukee.

Dr. Joseph Erlanger of Johns Hopkins Medical School, has been appointed to the chair of physiology in the pre-medical department of the University of Wisconsin.

Dr. J. F. Corbett, formerly of Weyauwega, has purchased the practice of Dr. M. H. Fisk of Wauwatosa, and will reside there in the future. During the past year Dr. Corbett has been in California.

The Milwaukee Tuberculosis Sanitarium encountered serious opposition from citizens of Wauwatosa upon its proposal to locate its sanitarium near that city, and relinquished its site.

Dr. W. C. Oviatt, of Oshkosh, was elected to the presidency of the Western Surgical and Gynecological Society at its annual meeting held in Salt Lake City, Utah, on Sept. 2nd.

An Anti-Spitting Ordinance, quite drastic in its measures, has been adopted by the city council of Kenosha. Mayor Gorman has announced that the law will be enforced to the letter.

Dr. A. W. Gray, secretary of the Medical Society of Milwaukee County and ex-Vice-President of the State Medical Society, was married in Chicago on Sept. 5th to Miss Ada Ferry, of Kansas City.

John Stolze, M. D., a graduate of the Eclectic Medical College of Pennsylvania in 1865, died at Lake Geneva on September 11, at the age of 73. Dr. Stolze was a surgeon during the Civil War, and at one time practiced in Reading, Pa.

Dr. W. C. Lohr, a graduate of the Milwaukee Medical College, 1905, died at West Bend, his home and birthplace, on August 25th. The deceased was but 27 years of age, and during the short period of his practice gave promise of attaining much success. In December of last year the first symptoms of the malady that caused his death, appeared. An autopsy revealed a lymphosarcoma invading the anterior and middle mediastinum. Dr. Lohr had been married but little over one year.

An Impostor.—Members of the profession are warned against the operations of one G. E. Simpson, who is fraudulently taking orders for *Surgery, Gynecology and Obstetrics* published by the Surgical Publishing Company of Chicago and under the Managing Editorship of Franklin H. Martin, M. D.

Many doctors have already been victimized by this man to the extent of paying cash for orders for the journal or giving him checks payable to his own order; and this notice is published in the interest of the profession and for the purpose of putting a stop to his further operations.

Wm. R. Cheever, M. D., of Kenosha, was found asphyxiated at his home on the morning of August 30th. Dr. Cheever's wife and a brother, Dr. Homer Cheever, had also been overcome by the gas, but have recovered. Dr. Cheever was 38 years of age and one of the most prominent members of the profession in southern Wisconsin. He was graduated from the College of Physicians and Surgeons, Chicago, in 1896, and had built up an extensive practice in Kenosha. It appears from the contents of Dr. Cheever's will that he had feared a sudden death. The doctor requested that his instruments be sent to the Kenosha Hospital, and that his medical library be divided among the physicians of the city.

IN MEMORIAM

DR. JOHN A. RICE.

One more toiler of the old school has passed away. One more of the now nearly extinct class of country doctors has gone "to the undiscovered country from whose bourn no traveler returns," and many firesides mourn his departure. Dr. John A. Rice died on August 18th, after a lingering illness, at his home on Lake Keesus, in the town of Merton, Waukesha County, aged 75 years. A pioneer of the

county, by self-sacrificing devotion to his chosen calling, he soon secured a leading position in the medical ranks of Wisconsin and held the same untarnished up to the time of his demise. Being also of a scientific turn of mind, besides studying medical current literature he took a deep interest in works of archaeology, and contributed materially to the development of that subject in the state. In fact, he combined in his mental make-up three characters, a conscientious able practitioner, a keen, speculative business man, and a true friend to the distressed and needy. He was beloved in hundreds of homes where he practiced with much skill and sympathy during half a century, and thousands of men and women live to bless him for the services he rendered in their days of sickness and pain and at the death of loved ones. A remarkable memory helped him to retain facts and theories in medical literature, in allied sciences and in political evolutions, and upon my question, when and where he did his reading, he would modestly answer, "in the railroad train, at my fireside, but at the same time I can take part in any conversation and never forget what I have once read."

Dr. Rice was born at Ticonderoga, N. Y., March 17, 1832. He studied medicine in Fleming county, Ky., under an able instructor, and in 1857 received his diploma from the Western Reserve Medical College at Hudson, Ohio. In the same year he located at Merton, and ever after made that town his home. Study, observation and experience rendered him an expert in mental diseases, so that he was even called to Washington as a witness for the defense in the celebrated Guiteau murder trial, and the post-mortem examination of the condemned assassin of President Garfield proved the exact truth of his testimony in pronouncing him a paranoiac. In the year 1878 he accompanied, as medical advisor of the enterprise, the Industrial Expedition to Mexico, and subsequently traveled extensively in the interior of that country, making excavations for relics, etc., under a military guard, furnished by President Diaz, who held the doctor and his achievements in the highest esteem. While in the City of Mexico, he was made an honorary member of the Mexican Geographical Society, said to be the oldest scientific organization in America. I never forget the allusion made to me, when he showed me his membership card of the society, saying that he felt quite elated in being permitted to sign his name in the membership register, where a few pages before appeared the signature of Alexander von Humboldt, the writer of Kosmos.

Generous to a fault, he donated all of his valuable collections

and books to the Wisconsin Historical and Archaeological Society, and was ever ready with hand and heart to further scientific researches. The high esteem in which he was held the community where he had worked faithfully for the betterment of his fellowmen, was exemplified at his obsequies in the peaceful cemetery at Hartland, by the large attendance of friends and neighbors, and by the presence of many of his medical confreres in the Waukesha County Medical Society, who will miss him in their monthly conventions.

Sit tibi terra levis! HUGO PHILLER, M. D.

WAUKESHA, WIS., August 22, 1906.

MEETING OF THE BRITISH MEDICAL ASSOCIATION.

SPECIAL CORRESPONDENCE.

September 1, 1906.

To the Editor of the *Wisconsin Medical Journal.*

Dear Sir: The meeting of the British Medical Association, held in Toronto, has come and gone with no startling or general change in our knowledge or practice. Many of the papers were contributed by invited guests from the United States. The principal addresses before the general meetings were, of course, by noted men from abroad. So many of the views expressed were a rehash of articles already published in America or England, that an abstract of the papers, except in the case of a few articles to be mentioned later, would give nothing of much interest.

However, to have seen and heard some of the eminent gentlemen present, even for a few hours, is an education and delight to the practitioner; the renewing of old acquaintances, the making of new friends, especially with the leading lights of our profession, is one of the attractions to the habitué of national and international gatherings. It is well worth the expense of attending the meeting and the time lost from individual practice.

About 2200 members and visitors were registered and were fairly well taken care of at the hotels and lodging houses, but the city not being larger than Milwaukee, of course its capacity for taking care of visitors was stretched by this crowd of people all of whom desired first class lodging, and in many cases were disappointed in having to put with what they could get.

Among the prominent Americans present, who were not "too

busy" to get away from their private work, was Wm. Mayo of Rochester, the retiring president of the American Medical Association, who, with two other outsiders and six residents of Great Britain, was honored by receiving the degree of LL. D. from the University of Toronto.

From our state there were present Drs. John Lyman of Eau Claire, W. H. Nielson, W. T. Becker and H. V. Würdemann of Milwaukee. From other states there were such men as Casey A. Wood, Roswell Park, A. J. Ochsner, John B. Murphy, J. H. Musser, A. E. Prince, Emil Mayer, Samuel Risley, L. Webster Fox, R. H. Sayer, W. H. Welch, Norval Pierce, and many others of equal prominence.

The Sections met only in the mornings, and as the published programs were not rigidly adhered to, there was much waste of time, which we Americans would not have allowed. The majority of the Sections had a time limit to papers and discussions, but this ruling was more honored in the breach than in the observance. Some discussions seemed interminable and very prosy. The intolerable heat and humidity the first four days did not add to the liveliness of the proceedings. Despite this, many English gentlemen commented upon the wonderful energy and go of Americans, and by that they mean US. Indeed, one of them warned the Canadians as follows: "Remember you are one of the Provinces of Great Britain. Do not be carried away from the conservatism of England by the wild enthusiasm of the States."

The educational advantages of the Universities of Toronto and of Montreal are well known to be of the highest, and I firmly believe that there, as well as in many cities of our own America, as good as or better medical education may be obtained than in any part of Great Britain.

The meetings were held in the buildings of the University of Toronto which were well adapted for the purpose. Meeting rooms for the receptions were somewhat crowded, but the Canadians had expected an attendance of only about 1500, when it proved to be very much in excess. This was owing to the attendance of a large number of invited and other American guests, and in consequence there was some confusion and paucity of material at the registration rooms, but this was quickly and readily rectified by ordering new supplies. As with us, several other medical bodies held meetings the day previous to the formal meeting of the general association, among them the Canadian Medical Association and the Orthopedic Association, in none of which any remarkable addresses were made, or papers read.

Dr. Richard Andrew Reeve, Dean of the Medical Faculty of the University of Toronto, who is an ophthalmologist, is president of the Association, an honor which, to say the least, is problematical for "eye men" in our country for our own American Association. During the following week, at the meeting of the American Academy of Ophthalmology and Oto-Laryngology, Dr. Reeve was elected 1st Vice-president.

There was a great variety of social entertainments to which the afternoons and evenings were given up, some of them very gorgeous, and doubtless greatly enjoyed by those who cared for such things. "Members are specially invited to wear academic costume and uniform at the functions." In consequence of this request some of our brethren from over the sea were very gorgeous and attracted much attention.

Dr. Parker of Baltimore, at a meeting of the house surgeons of the General Hospital, spoke of a system of upper and lower houses for house surgeons, to give opportunity for continued training. He did not think that in one year any one could become a great surgeon and that a graded staff was needed for the hospital of the future.

In the Dominion Alliance Sir Victor Horsley stated that the profession as a whole indicates a hostile rather than a friendly attitude towards the drug called alcohol. At the last meeting of the Section on Physiology quite a number of prominent men from America and abroad stated that the facts as known to-day were favorable to the judicious use of alcohol in disease.

Dr. Reeve's address was a summary of the leading phases of thought and activity in the medical world. He greatly complimented the British Medical Journal as forming a strong bond of union among the members.

The three leading addresses were printed in advance and distributed as supplements to the British Medical Journal. The first by Sir James Barr, on "The Circulation Viewed from the Periphery," being a very lucid explanation and description of the blood, its viscosity, the interchange of material through the capillary walls, arterioles and capillaries of the skin and various internal organs, the pressure in the veins, the velocity, etc.

The address of Sir Victor Horsley "On the Technique of Operations on the Central Nervous System," is the most valuable recent contribution to this subject. His voice had a sufficient carrying power and his delivery was so good that he held his audience spellbound. Here may be interpolated a very remarkable editorial appearing in the Toronto World, of which I could not determine whether it was in-

tended to be humorous or in earnest: "The most marked feature of the gathering of the British doctors is the superiority of the Englishman's voice over that of his cousins in Canada and from the United States. Some find the source of the resonant timbre in the climate of the British Isles, but this does not explain it. The nearest approach at an explanation is to say that there is breeding (*sic*) in the English voice. Those, who up to this moment have not been struck by the polished voice with a family tree, will find it an inspiring task to contrast the sound of Sir Thomas Barlow's voice with that of Dr. L. Barker of Baltimore or that of Dr. Reeve of Toronto. If in nothing else, the English doctor leads the earth in voice." Most of the Englishmen I heard had what I would esteem an extremely poor delivery and in some cases were very difficult to understand.

Horsley referred to the address on surgery which he delivered 20 years before when he exhibited the first three patients he had operated upon for intra-cranial disease, the principles then advanced being based chiefly upon experiments upon animals. During the past 20 years many clinical observations on human beings have confirmed and extended the general soundness of the broad principles underlying the treatment then proposed. He divides the operations into palliative and curable procedures. He shows that intra-cranial disease is liable to produce optic neuritis which customarily ends in total blindness, causes severe headache and vomiting, all of which symptoms depend upon pressure, and can be completely palliated or wholly removed by making a sufficiently free opening in the skull and dura mater. In the curative procedures he considers the following: What the nature of the disease is; what loss or aberration of nerve function it causes; whether if the lesion be wholly extirpated there will be recovery, or whether any loss which may have been present before the operation will be made permanent by the necessary extirpation of particular regions of the brain. He considers the details of operative procedure, previous operation, and most particularly the anesthesia. He regards ether as inadmissable in operations on the central nervous system; prefers chloroform given by the Vernon Harcourt regulator, which gives oxygen along with the anesthetic. His article is illustrated by some remarkable photographs of the brain and enlarged photographs of the section of the eye showing optic neuritis. He goes on to the treatment of shock, sepsis, displacement of the brain, and procedures in the treatment of malignant disease of the encephalon.

The address on "The Teaching of Obstetrics" was given by W. S. A. Griffith, F. R. C. S. He shows that the defect in the lectures upon

this subject is largely due to the fact that the lecturer presides over no obstetric clinic and has often had but little experience. The lying-in hospital is the only practical way of teaching this branch of medicine.

In the Section of Therapeutics an Imperial Pharmacopoeia was recommended, likewise medical reciprocity in the United Kingdom. In all of the meetings the American doctors took part in the delivery of papers and in the discussions, not only to their credit, but indeed—apparently to the surprise of many of our European friends—at the thoroughness and experience of their colleagues. The Toronto daily press gave exceptionally lucid and full reports of the proceedings.

After the meeting of the British Medical Association, I went on to St. Clair, Michigan, 62 miles north of Detroit, on the beautiful St. Clair River, to attend the meeting of the American Academy of Ophthalmology and Oto-Laryngology, presided over by Casey A. Wood of Chicago. At this meeting Mr. M. Marcus Gunn, president of the Section of Ophthalmology, and J. Dundas Grant, president of the Section of Laryngology and Otology (of the British Medical Association), were honored guests. Our meeting was carried out with the characteristic American business methods and was in every way a success. 130 members were present and many valuable articles were contributed, and a number of new contributions to the study of our specialties were made. Among them the so-called "Indian method for cataract extraction," "Changes in the circulation of the eye or general system," "Use of electricity and massage in the treatment of optic nerve and retinal atrophy," in the Eye Section, were attended by much valuable discussion. In the Ear, Nose, and Throat Section the work was largely upon operative procedures and their brain complications.

The Wisconsin men present at this meeting were Drs. G. E. Seaman of Milwaukee, F. T. Nye of Beloit, and the writer

Very truly yours,

H. V. WURDEMANN, M. D.

Milwaukee.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.		FOR FOUR YEARS.	
1st Dist., H. B. Sears,	Beaver Dam	7th Dist., W. T. Sarles,	Spara
2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
FOR TWO YEARS.		**FOR FIVE YEARS.**	
3rd Dist., F. T. Nye,	Beloit	9th Dist., D. L. Sauerbering,	Wausau
4th Dist., C. A. Armstrong,	Boscobel	10th Dist., E. L. Boothby,	Hammond
FOR THREE YEARS.		**FOR SIX YEARS.**	
5th Dist., J. V. Mears,	Fond du Lac	11th Dist., J. M. Dodd,	Ashland
6th Dist., J. S. Walbridge,	Berlin	12th Dist., A. T. Holbrook,	Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

PROCEEDINGS OF THE HOUSE OF DELEGATES.

(Continued from page 159.)

The Treasurer's Report was then presented as follows:

TREASURER'S REPORT.

Milwaukee, June 26, 1906.

S. S. HALL, in account with the State Medical Society of Wisconsin.

Debtor.

Balance on hand June 7, 1905		$3,761.69
Received from Secretary	$2,840.50	
Subscription Legislative F.	549.00	3,389.50
Total		$7,141.19

Creditor.

WISCONSIN MEDICAL JOURNAL.

1905	
July 5	133.30
August 8	134.80
October 4	271.20

November 3	136.00	
December 8	137.40	
1906		
January 10	137.50	
February 5	138.00	
March 7	140.30	
April 9	140.00	
May 3	140.00	
June 4	147.80	1,656.30

COUNCILORS EXPENSES.

1905		
June 7, D. Sauerhering	11.50	
June 7, E. L. Boothby	34.45	
June 7, J. M. Dodd	36.36	
June 7, W. T. Sarles	33.55	
June 8, H. B. Sears	13.14	
June 10, J. Meachem	11.95	
June 10, F. T. Nye	11.40	
September 12, T. J. Redelings	28.35	
1906		
January 10, J. S. Walbridge	5.30	
January 10, E. L. Boothby	25.50	211.50

GENERAL EXPENSES.

1905		
June 13, W. T. Sarles	1.50	
June 13, T. H. Miller	2.50	
June 16, C. S. Sheldon	92.42	
June 19, A. T. Holbrook	7.50	
June 24, C. S. Sheldon Secretary on Salary		
1904—5 $100.00		
1905—6 200.00	300.00	
July 7, S. S. Hall, Treasurer, 1905—6 on Salary	125.00	
August 4, C. H. Ellsworth, printing	3.00	
1906		
August 8, H. D. Goodwin, reporter	198.00	
May 31, Am. Med. Ass'n., acct. May 26, 1906	1.75	
June 4, Tracy, Gibbs & Co., acct. May 31, 1906	50.65	782.32

LEGISLATIVE COMMITTEE EXPENSE.

1905	
July 1, G. E. Seaman	25.00
July 1, J. J. McGovern	80.00
July 1, Churchill, Bennett & Churchill	500.00
October 4, Churchill, Bennett & Churchill	50.00
1906	
January 11, Churchill, Bennett & Churchill	225.00

May 1, Churchill, Bennett & Churchill.....	125.00	1,005.00
		3,655.12
Balance on hand		3,486.07
		$7,141.19

Respectfully submitted,

S. S. HALL, *Treasurer.*

Motion made that the report be referred to the council as an auditing committee, and that when audited the treasurer's report be referred back to the House of Delegates for its action.

Seconded and unanimously carried.

The Secretary then presented his report as follows:

THE ANNUAL REPORT OF THE SECRETARY.

Gentlemen of the House of Delegates:

The Secretary begs leave to submit the following report for 1906:—

Another year has passed, the third under our present plan of procedure, and it again becomes the duty of your Secretary to gather up its varied experiences, not only for your information, but that we may gain wisdom from this experience as well, and so be able to prosecute more successfully the work we have undertaken.

The last annual meeting found the State Society composed of 62 component county societies. During the year three of these, Forest-Florence (3), Taylor (6), and Marquette (7) have discontinued their organization, the members uniting with larger societies adjoining. This leaves us at present with 59 county societies, all of which have sent in their annual report. One year ago it was stated that the new plan was still on trial, possibly only in the experimental stage. With another year to look back upon, it may be confidently asserted that, while we have no right to be satisfied with present conditions, and while just as hard work awaits us as in the past—yet we are justified in believing that the movement is no longer an experiment, but that it has gained a foothold which gives every prospect of permanent success. In making up our judgment in the case, we must consider the conditions as they exist in the state at large, rather than in any particular locality. So considered—judged by any test whatever—there is clearly a marked progress and improvement. As to numbers, there has been a steady and consistent increase. As a rule the organization of the county societies has been more stable and easily maintained. The meetings have been more frequent and better sustained, while generally, the professional and fraternal spirit has been much more in evidence. If there has been dissatisfaction with the plan, it has not manifested itself among the membership. Where the plan has been criticized, or the results belittled, it has been by reason of imperfect knowledge, or a lack of appreciation of the real facts and conditions of the case.

Following the plan of last year, a blank, making enquiries as to the life and activities of the society during the year has been sent to the 59 county secretaries, and 54 replies have been returned. From these replies it is still evident that the most difficult part of the problem concerns the counties with a small number of physicians widely separated and with poor railroad

facilities, but the same inherent difficulties, under these conditions, would be present no matter what plan might be adopted. As before suggested, still greater concentration, resulting in fewer county medical societies, may prove a partial remedy.

MEETINGS.

From these reports we learn that, during the year, one society has held 14 meetings, one 11, two 10, three 9, two 8, four 6, one 5, fourteen 4, twelve 3, nine 2, one 1. The average attendance at the meetings, in all the counties is 11. The average number of papers read, is 7½. In reply to the question if the interest in the scientific proceedings of the society had increased, 30 replied "yes," 14 say "no," while 6 are in doubt, or think it is about the same. As to an improvement in the professional and fraternal spirit, 36 say "yes," several in a very marked degree, 10 say "no," while 7 think there is no change. The probable reasons assigned for those who are unwilling to affiliate are various, such as, "The desire to advertise," "poor railroad connections and inability to attend the meetings," "lack of interest," "unwillingness to spend the time and the money," "jealousy and lack of local harmony." "Too little interest shown by councilor and state officers," etc., one secretary writes: "Indifference, inability to attend, and the Sectarian spirit"—Remedy: "Charity, earnest personal work of leaders, and attractive programs." As has been so frequently stated, the most important factor affecting success, in every society, is the county secretary. When he is earnest, energetic, and tactful, the results are forthcoming, even in the smaller counties. When these qualities are lacking, nothing can make good the fatal deficiency. He is often a hard man to find, but each society should spare no pains to find him, if possible. When a secretary has proven his fitness and capacity, he should be permanently retained. It is equally important that a poor secretary should be dropped so soon as his unfitness has been demonstrated.

As to frequency of meetings, 10 societies held monthly meetings, 5 once in two months, 27 quarterly, 3 have 3 meetings a year, 4 semi-annually, while a very few hold only an annual meeting for organization, in the very smallest counties. This is a better showing than last year, and corresponds with the replies regarding the increase in scientific interest. It is the feeling of the secretary that it is a good plan to hold monthly meetings—preferably in the evening—in every county where there is a town of any considerable size. Meeting frequently sustains the interest better, gives opportunity for more work and for a greater number to take part in it. The evening affords more leisure, and generally a better attendance can be secured than during the day. A full program of papers, with members appointed to lead in their discussion, should be made out at the beginning of the year for 6 or 12 months. It is best printed on cardboard, to be posted up in the office as a reminder of the meetings. If the railroad connections do not accommodate the county members, two or three meetings in the year can be held in the afternoon as well as the evening.

MEMBERSHIP.

Of the 59 societies, comparing those who have paid dues for 1906 with the total membership of 1905, 34 have increased their membership, 17 have lost, while 8 have remained the same. This is a much better showing than one year ago, where 33 counties had lost as compared with the report at the

1904 annual meeting. The largest gains have been in Milwaukee 11, Dane 11, Dodge 8, Waupaca 7, and Brown 7, and Marathon 6. The greatest loss is in Iowa, 6, and Buffalo-Pepin and Sauk, 4. No others have lost over 3, and most only 1 or 2. The present membership (those who have already paid the 1906 dues and have been reported) is 1,434. At the last annual meeting it was 1,348, a gain of 86. Last year there was a gain of 43, the 1904 report —the first year, giving 1,305. We shall probably gain about 75 members during the year, bringing the 1906 membership to 1,500 or thereabout.

THE COUNCIL.

From the county reports it would appear that the council, as an organized body, to do efficient work, is far from coming up to the theoretical standard. Aside from the counties in which the councilors live, but 25 visits have been made during the year, an average of two visits in each of the councilor districts. This does not indicate as deep an interest in the work, and as active co-operation with the county secretaries as is desirable.

To be sure such work takes valuable time, which often lacks appreciation, and sometimes seems wasted, but it is all needed if we are to secure the best results.

Several meetings of the council have been held during the year, all in Milwaukee, at which reports were received from the several councilors, and plans were discussed for best carrying on the work.

PUBLICATION.

At the last annual meeting the contract with the Wisconsin Medical Journal Co. was renewed and the WISCONSIN MEDICAL JOURNAL has been the official organ of the society during the year. Under the efficient management of Dr. A. J. Patek, editor, and Dr. H. E. Dearholt, managing editor, it has more than maintained its previous high standard. In every way it seems preferable to continue the present contract rather than undertake to publish our own journal, and so the secretary would recommend.

During the year a voluntary assessment of 50 cents per member was suggested to the county societies, to assist in the payment of the expenses of legislation at the last session. The response was quite general, and as the treasurer has told you, the bill is now paid in full.

In several of the Councilor Districts no district society has yet been formed. To perfect the organization these societies should be organized as soon as possible.

DEATHS AND REMOVALS.

The following deaths have occurred in the membership of the society:

W. H. Bartram, of Green Bay, Nov. 22, 1905; J. C. Bell, of Cottage; T. T. Beveridge, of Appleton, April 20, 1906; J. E. Birkhaeuser, of Milwaukee, April 23, 1906; D. B. Devendorf, of Delavan, April 24, 1906; J. F. Ford, of Omro, Oct., 1905; W. S. Holford, of Cassville, August, 1905; J. E. Luce, of Chilton, Jan. 31, 1906; S. L. Marston, of Hartford, April 23, 1906; J. H. Rheingans, of South Germantown, Jan. 10, 1906; J. E. Smith, of Mauston, October, 1905; Stansmore Vivian, of Mineral Point, Jan. 5, 1906; O. Titus, of Kaukauna.

The following removals have been reported:

J. R. Birkeland, of Prentice, to Chicago, Ill.; A. T. Blackley, of Hayward,

to Klamath Agency, Oregon; G. B. Bradford, of Milwaukee, to Hudson; A. O. Christenson, of Galesville, to Hawkins; S. N. Colliver, of Athens, to Europe; A. Conlahan, of Merrill, to Michigan (State); James Cox, of Clyman, to Jefferson; J. J. DeMers, of Prentice, to Park Falls; A. V. DeNeveau, of Green Bay, to Fisch Mills; C. M. Echols, of Appleton, to Milwaukee; Otho Fiedler, of Milwaukee, to Athens; F. P. Flynn, of Wonewoc, to Stoddard; H. L. Garner, of Rhinelander, to Bundy; G. G. Gobar, of Apolonia, to ——; A. F. Harter, of La Crosse, to Marathon City; T. H. Hay, of Milwaukee, to Stevens Point; Frank Hicks, of Washburn, to Grand Marias, Minn.; J. G. Hoffman, of Hartford, to Hartland; Glen Howard, of Columbus, to Wausau, Ind.; G. Hoyer, of Oshkosh, to Milwaukee; H. R. Kaufman, of Monroe, to Akron, Ohio; E. P. Kermot, of Richland Center, to Madison; I. M. Kyes, of Grand Rapids, to Weyauwega; Wm. Lerche, of Eau Claire, to St. Paul, Minn.; H. E. Levin, of North Lake, to ——; W. J. Lonergan, of Brookfield, to ——; G. S. Love, of Waukesha, to ——; J. A. Lyons, of Neosha, to Fond du Lac; F. E. McClure, of Neenah, to Detroit, Mich.; J. E. McCoy, of Elk Mound, to Canada; J. Mathieson, of Whitehall, to Eau Claire; J. E. Metcalf, of Fennimore, to Salino, Kansas; S. S. Morse, of Eldorado, to Kansas City, Kansas; R. A. Nixon, of Brookfield, to ——; O. F. Partridge, of Pewaukee, to Barnwell, Ala.; D. Payne, of Beloit, to Italy; S. J. Phaneuf, of Somerset, to Rhinelander; Geo. Pomainville, of Humbird, to Grand Rapids; Alfred Poppe, of Wautoma, to Arkdale; J. A. Powlas, of Oneida, to Green Bay; J. G. Randall, of Monroe, to Missoula, Mont.; G. A. Ribenoch, of Menomonie, to Duluth, Minn.; R. H. Rice, of Kewaunee, to Stevens Point; J. B. Robb, of Berlin, to Chicago, Ill.; L. W. Sayles, of Shell Lake, to Baraboo; P. L. Scanlan, of Lancaster, to Prairie du Chien; G. S. Schmidt, of Oshkosh, to ——; C. J. Schoenfeld, of La Crosse, to Europe; F. W. Schultz, of Merrill, to Sarasota, Fla.; F. Sedelmair, of Birnamwood, to Baltimore, Md.; A. Sutherland, of Brodhead, to Oshkosh; Justus Sutherland, of Brodhead, to Great Bend, Kansas; C. F. Tyrrell, of Fox Lake, to Livingston, Mont.; H. H. Voss, of Marathon, to Plymouth; T. W. Winneman, of Hazelhurst, to Gleason.

The following is a tabulation of membership in 1905 and 1906—arranged under the headings: Name of County; Membership 1905; Membership June 26, 1906; Eligible and Non-affiliated; Number of Meetings; Average Attendance; Number of Papers; Councilors' Visits; Improvement in Scientific Interest; Improvement in Professional Spirit; Evening Meetings; Interval of Meetings.

COUNTY	Members 1905.	Members June 28, 1906.	Eligible and Non-affiliated.	Number of Meetings	Average Attendance	Number of Papers.	Councilors' Visits	Scientific Interest and Professional Spirit		Evening Meetings	Interval of Meetings
Ashland	15	19 (+ 4)	1	6	5	10	3	no	same	yes	monthly
Barron-R-P.	26	30 (+ 4)	17	4	?	14	none	yes	yes	P. M.	quar.
Bayfield	6	6									
Brown	25	30 (+ 5)	?	4	9	4	0	yes	yes	no	bi-mo.
Buffalo-Pepin	17	13 (— 4)	6	4	7	8	6	no	yes	yes	quar.
Calumet	12	12	2	4	7	4	1	yes	yes	no	quar.
Chippewa.	15	12 (— 3)	?	2	8	4	0	yes	yes	no	dif.quar.
Clark	12	13 (+ 1)	10	2	5	4	0	no	chng.	indef.	quar.
Columbia	23	28 (+ 5)	5	2	15	0	2	yes	yes	no	semi-an.
Crawford	9	8 (— 1)	6	2	5	4	2	?	yes	yes	semi-an.
Dodge	22	30 (+ 8)	8	3	10	10	3	?	some	no	quar.
Dane	63	74 (+11)	23	3	30	8	none	yes	yes	yes	monthly
Door	5	7 (+ 2)	7	2	5	0	0	no	yes	yes	semi-an.
Douglas	25	25	4	14	10	10	1	no	no	yes	monthly
Dunn	20	21 (+ 1)	3	10	7	5	2	yes	yes	yes	monthly
Eau Claire	26	24 (— 2)									
Fond du Lac	43	43	8	6	17	15	0	yes	yes	yes	bi-mon.
Grant	38	32	13	3	12	6	3	yes	yes	no	3 in year
Green	24	21 (— 3)	4	3	18	15	0	yes	?	no	quar.
Green Lake	25	26 (+ 1)	8	4	18	10	4	yes	yes	yes	quar.
Iowa	16	11 (— 5)	5	1	4	1	0	no	no		
Iron	5	3 (+ 2)	6	4	3	0	0	yes	no	aft.	quar.
Juneau	13	11 (— 2)	8	2	10	5	1	yes	some	no	semi-an.
Jefferson	23	23	6	4	12	14	1	yes	yes	yes	quar.
Kenosha	14	28 (+14)	15	9	8	8	9	yes	yes	yes	bi-mon.
Kewaunee	8	6 (— 2)	6	6	5	10	0	no	no	yes	quar.
La Crosse	27	28 (+ 1)	8	9	18	6	1	yes	yes	yes	monthly
LaFayette	20	21 (+ 1)	3	3	10	6	0	no	yes	yes	3 in year
Lincoln	18	15 (— 3)	2	4	6	4	1	same	same	yes	quar.
Langlade	5	7 (+ 2)	13	3	6	—	1	yes	yes	—	quar.
Manitowoc	22	23 (+ 1)	3	4	10	6	4	no	yes	yes	quar.
Marathon	21	27 (+ 6)	9	4	15	14	4	yes	yes	yes	quar.
Marinette	14	13 (— 1)	7	6	8	12	6	yes	yes	yes	bi-mon.
Milwaukee	250	261 (+11)	100	9	31	10	0	no	?	yes	monthly
Monroe	20	23 (+ 3)	5	2	14	4	2	yes	yes	yes	
Oconto	10	12 (+ 2)	12	6				yes	yes	depds.	bi-mon.
Oneida	9	7 (— 2)		2	3	0	0	no	no	yes	?
Ozaukee	7	6 (— 1)									
Outagamie	32	35 (+ 3)	21	4	25	10	1	yes	yes	early	aft. Q.
Pierce	15	18 (+ 3)	4	3	6	2	2	same	yes		aft. Q.
Portage	17	18 (+ 1)									
Price	10	7 (— 3)									
Racine	24	25 (+ 1)	18	2	7	4	1	same	yes	depds.	quar.
Richland	16	18 (+ 2)	7	11	8	4	0	yes	yes	yes	monthly
Rock	35	40 (+ 5)	35	8	16	18	2	yes	yes	yes	monthly
Sauk	18	14 (— 4)									
St. Croix	16	13 (— 3)	8	10	10	12	10	yes	yes	yes	monthly
Shawano	11	16 (+ 5)	0	4	10	6	0	no	no	no	quar.
Sheboygan	20	24 (+ 4)	22	8	6	6	2	no	yes	yes	monthly
Trempealeau J.	18	15 (+ 2)	6	4	10	7	1	yes	yes	P. M.	quar.
Vernon	16	15 (— 1)	10	3	7	2	1	no	no	no	3 in year
Vilas	3	3									
Walworth	21	26 (+ 5)	20	4	15	12	1	yes	yes	no	quar.
Washington	14	14	9	3	8	9	1	yes	yes	yes	quar.
Washburn-S-B.	11	10 (— 1)	12	3	7	6	1	no	no	no	quar.
Waukesha	36	37 (+ 1)	1	9	10	11	0	yes	yes	yes	monthly
Waupaca	15	22 (+ 7)	8	3	7	1	0	yes	yes	no	quar.
Winnebago	42	45 (+ 3)	28	5	20	7	0	yes	yes	yes	quar.
Wood	19	20 (+ 1)	6	3	12	20	0	yes	yes	yes	quar.

From this report it will be seen that we are making substantial and satisfactory progress, and, with proper effort, there is every reason to believe we shall continue to do so. What we once fairly get I think we shall surely hold. What is especially encouraging is that the medical society conditions of the future are likely to be much better than they have been in the past. With our rapidly advancing standards in medical education the profession

is being recruited by young men with more thorough preparation and consequently higher ethical ideals. They are not only better fitted to appreciate the advantages of a good medical society, but also to take part in its proceedings and help maintain an interest. Then, too, in the long run, the righteousness of the cause will tell. The inherent and unquestionable benefits to be derived from such organizations, for the profession as well as the individual, will become more and more in evidence. The argument is all on one side. There are a thousand good reasons why county medical societies should exist and not one against their existence. Let us take courage then, and take up the work of another year with renewed zeal and enthusiasm.

Thanking all who have assisted in the work of the past year and especially the good county secretaries, this report is respectfully submitted.

CHARLES S. SHELDON, *Secretary.*

Two Societies, Forest-Florence and Taylor, although the secretary has used his utmost endeavors to have them affiliated with other counties, he has not been able to secure that result up to this time. The same is true of Marquette. The Columbia county people did not wish to have the name of their county hyphenated with another county. I suggested then that the Marquette county members could join Columbia county as individuals, but it has not been accomplished, and these three counties are still unaffiliated. But we expect that this affiliation will be accomplished soon.

The organization is otherwise in excellent condition throughout the state, and practically intact. That is, there are no large losses and there are usually gains.

The report was received and placed on file.

ELECTION OF DELEGATES TO THE A. M. A.

CHAIRMAN: The next order of business is the election of delegates for the American Medical Association.

SECRETARY: We are entitled to three delegates, each for two years. Accordingly we have to elect two delegates one year and one next. Last year we elected Dr. Washburn. Dr. Sarles and Dr. Bennett were elected two years before, and therefore their terms expire. So that delegates must be elected in their place.

DR. J. J. MCGOVERN: I think if the same two men would serve us again they would be of greater service to us if they would consent, even than they have been in the past, as they have had experience.

CHAIRMAN GRAY: We have decided to make this a nominating ballot and it is within the choice of the delegates present as to what names they will put on those ballots.

DR. B. M. CAPLES: I move that the regular order of business be dispensed with and that the secretary cast the vote of the house for W. T. Sarles, of Sparta, as a delegate to the American Medical Association.

Motion unanimously carried, and Dr. Sarles was declared elected.

DR. SARLES: I am very much gratified at the expression of the society in my behalf, but remember I have been a delegate from this society for five years, ever since the first delegate was elected, and I

should not have gone east this year if I had thought we had three men to go, but Dr. Sheldon kept writing me of the regrets of nearly every man who was appointed to go. Now I accept with this understanding, that whomever you put in for alternate, if he wants to go pretty badly, shall go in my place, because I do not want to feel that I must go down east next year as a delegate, absolutely, and I would like to have you select an alternate who would say that he would like to go and will go.

DR. H. E. DEARHOLT: I move that the secretary be empowered under suspension of the rules to cast the unanimous vote of the house for Dr. B. M. Caples of Waukesha as the other delegate of the society.

Motion unanimously carried, and Dr. Caples was declared elected.

DR. BOOTHBY: I would like to nominate Dr. John V. R. Lyman, of Eau Claire, as alternate for Dr. Sarles, and move that the rules be suspended and that the secretary be empowered to cast the unanimous vote of the house for John V. R. Lyman as alternate for Dr. Sarles as delegate for the American Medical Association.

Motion unanimously carried, and Dr. Lyman was declared elected.

DR. G. V. MEARS: I move that the secretary cast the ballot of the house under suspension of rules, for Dr. H. V. Würdemann, of Milwaukee, as alternate for Dr. Caples as delegate to the American Medical Association.

Motion unanimously carried and Dr. Würdemann declared elected.

CHAIRMAN: The next order of business is the election of Committee on Scientific Work.

DR. SARLES: I move that the balance of this work be left to the session tomorrow morning at 9 o'clock.

Motion carried.

Recess until 9 o'clock A. M. next day at Stephenson building.

WEDNESDAY, JUNE 27, 1906, 9 A. M.

Stephenson Building, Milwaukee, Wednesday, June 27, 1906, 9 A. M. Convention called to order by the Secretary.

Dr. Boothby was elected temporary chairman.

Roll call, quorum present.

Motion made that the appointment of Committee on Scientific Work (programme committee) be left to the incoming president.

Minutes of last meeting read and approved.

PUBLIC POLICY AND LEGISLATION.

CHAIRMAN: The next order of business is the election of Committee on Public Policy and Legislation.

DR. J. J. MCGOVERN: I have a very important matter which I desire to present to the House of Delegates. It is a fact that the State Board of Medical Examiners is at the present time under the control of the irregulars. The regular medical profession has little or nothing to say regarding the policy of the present state board.

I am informed by one of the members of the board that he was approached by the President of the Press Association and by the head

of the Milwaukee Medical College with the request to favor Dr. J. V. Stevens as secretary of the State Board of Medical Examiners. Why are these two interests working in Stevens' behalf? The Press Association can only be interested in the advertising concerns. Is Stevens their representative on the board?

Now I think the society ought to do something to remedy this evil by changing the state law so as to give the regular profession a greater representation on the board. We represent about 2,600 out of the 3,000 physicians and we are represented by only 3/8 of the board. I think something ought to be done to correct this misrepresentation.

DR. C. H. STODDARD, of Milwaukee: It is difficult to do anything in regard to the prosecution of quacks, also in regard to the state law passed two years ago with reference to the suppression of quack advertisements, etc., in the newspapers. Our state board is tied hand and foot; they are inefficient for the reason that the irregulars have a majority, and they lie back and refuse to allow anything to be done. This matter cannot be gone at precipitately; we must do it advisedly; we do not want to instruct our committee on medical legislation to go ahead and do something that will not be the proper thing. Therefore it has occurred to a few of us here, that perhaps it would be a good idea if this House of Delegates should appoint a committee to examine into the subject and report before the end of this session, this report to be acted upon by the House, and that the committee on medical legislation then be instructed to go out to Madison and frame up some sort of law to meet this unfortunate state of affairs if it is deemed wise to do so.

DR. PRITCHARD: I think these gentlemen who have given this matter so much consideration, should be members of the committee, and I move that such committee be appointed and that they be members of it.

Motion carried.

DR. STODDARD: I suggest that inasmuch as Dr. McGovern and myself are right in Milwaukee that somebody else in the state should be put on that committee also.

DR. BOOTHBY: I will appoint the following on that committee: Dr. J. J. McGovern, Dr. C. H. Stoddard and Dr. I. G. Babcock, of Cumberland.

You will please give that matter your earliest attention and report as soon as practicable to the House of Delegates, before the committee on public policy and legislation is appointed, so that they will know what they are to do.

While I am here allow me to read a resolution from the Eau Claire County Medical Society, which was handed to me Monday evening, while I was on the way down here and which has something to do with this same question.

Resolved, by the Eau Claire County Medical Society that, owing to the large number of cases confined in the State charitable and penal institutions who are inmates thereof because of some physical or mental condition, that such being the case we deem it important that at least one member of the state board should be a physician, and to further this end be it

Resolved, that the State Medical Association be asked by this Society to take some action upon this subject looking to measures being taken to further such change in the state law as will compel at least one member of the state board of control to be a physician.

R. F. WERNER,
A. F. HAHN,
J. H. NOBLE,
Committee.

J. F. FARR, *President.*
Per H.

J. B. GODDARD, *Secretary.*

DR. SARLES: There is one member of the board of control who is a physician, at the present time.

Dr. Frisby, the lady member of the board, is a graduate in medicine, and was a practitioner when chosen on the board; so that he will have to change his resolution to read "a male physician".

DR. J. L. CLEARY: It is ridiculous that one or more physicians are not appointed on the board of control. With all the insane and defectives under the supervision of this board, it is only reasonable to insist that the state should provide members qualified by education and experience to properly fulfill the duties expected of them. It is only a whim on the part of the appointing power whether there is a physician on the board or not.

The great questions that the board has to decide in the management, discipline and care of the insane are purely medical ones. While I was a member of the board, many questions were referred to me, because the other members were entirely unfamiliar with the conditions involved and were only too glad to have a physician present to whom medical questions might be referred.

The board was expected to recommend the necessary legislation to the Governor or a legislative committee. In fact, the duties of the board are so far reaching that properly qualified persons only should occupy those places. The principal reasons why physicians are not appointed seems to be that they are not sufficiently familiar with the art of wire pulling. In times past, the board visited the county institutions about once in three months, but did not have any direct power except to condemn the management and recommend a change to the county trustees. If in the compilation and passage of laws governing the care and management of the insane, medical men were consulted, we would not have such cumbersome and inefficient laws as are now found on our statute books. This is a very important matter and some action should be taken to improve the treatment of these unfortunates.

It seems to me that much better results might be attained if we had efficient and proper medical supervision of all the defectives under state care. They all should be directly under state care and not under the care of county trustees who may be wholly incompetent under our present laws. Doctors now must have a license to practice medicine at all, but anyone may be a superintendent of a county insane asylum and pass judgment on the fitness of the insane to labor much

or little without any particular training to fit him for duties requiring a high order of efficiency.

Dr. Currens took the chair.

DR. BOOTHBY: I wish to read another resolution which is as follows:

At a regular meeting of the St. Croix Medical Society it was moved that the delegates from St. Croix County Medical Society bring before the House of Delegates assembled at Milwaukee, the inefficiency of the present medical laws in the state of Wisconsin; that they ask the cooperation of all other county societies to aid in securing proper legislation for the protection of honorable and legally licensed members of the medical profession.

C. F. KING, *President.*
L. P. MAYER, *Secretary.*

June 21, 1906.

The St. Croix Medical Society by resolution authorized the president and secretary to bring action against a notable quack practicing medicine in the northwestern part of the county, without a license. He did not call himself a physician, does not announce or charge any special fee, but takes whatever he can get, and he is making more money today than the combined medical profession of the county. There are 100 or 150 people in line there waiting day and night continually to see that ignorant, dirty, bare-footed man, a "magnetic" healer. The fact is they cannot prosecute that man under the present law; they cannot shut him out—a jury would not convict him. We have had two trials and he has beaten us both times. That is one example of the way the new medical law works.

PRESIDENT CURRENS: I want to say a word in regard to the medical board. I think we would be a great deal better off with five instead of eight members, but I do not believe that the State Board of Health should control, and never have believed it. I think we will accomplish more by being separate, and we would never have gotten the laws that we now have if the two had been combined. We do not want to take Illinois as a pattern. I consider it the weakest in the bunch. When I was on the board they shoved out more quacks, required less of their colleges, and we—with other state boards—have had to pull their quack colleges out of Illinois with national laws. There is not a more politic ridden board in the United States than that Illinois board, and one man can control the whole thing if inclined to do so. One man goes out and gives a dozen examination papers between each time set for examinations and issues licenses on them without any other member of the board voting on them until after these things are issued. When we formed our confederation they did everything to crush it out, and now they are crawling in and out of the band-wagon, and say "we were the first ones to advocate a practical reciprocity," when they know they tell what is not true. All they want is to be the "It" and they have always been "It". As far as the origin of that law is concerned—the doctor is right. I was practicing in Illinois at the time the law was passed, and know the doctor's statement to be true.

But I believe we should make an effort to change our board. It seems a mighty hard thing that when we have 2,400 regular physicians in this state, and less than 300 homeopaths and 100 electics and about 100 osteopaths, these other pathies should control, but that is the fact.

SECRETARY: We can stand the eclectics and the homeopaths, but we cannot stand the osteopaths.

PRESIDENT CURRENS: This board has no right under the laws existing today to pass one osteopath graduate hereafter and license him to practice, because there is not an institution in the United States unless it is the one at Des Moines that requires a study of three terms of eight months each before graduation. But you give a calf rope enough and it will hang itself, and we have given it the rope and it is pretty well hung.

DR. J. J. MCGOVERN: We would like to have this question discussed for the benefit of the committee. I do not believe in criticising the irregulars. The irregulars are all right in many ways, but it appears to me that they have allowed themselves to be used in the interest of the quack concerns and the private medical schools and that is what I object to. The quack concerns, as I understand them, have stands in different states, and they have a number of licensed physicians who move from one state to the other. If a fellow gets into trouble in one state they simply move him on to the next state, so it is necessary for their men to be licensed in several states. Now it seems to me that the present board is taking particular pains to see that these fellows are licensed in Wisconsin. To illustrate:

There was a regular meeting of the state board some three months ago. I believe there were 18 or 19 applicants. Of that bunch about half of them failed. I believe that most of the men who failed were the representatives of quack concerns. Now what did the board do? The secretary of the board, when he found, for instance, that Smith fell down in pathology, wrote to the man who examined Smith in pathology and asked him to raise his standing. If he found that Smith was short in two branches in which he was examined by two different members of the board, he wrote them and asked them to raise his standing in both branches; if he found that the examiner would raise the standing a little, but still the man could not slip through on his general average, he would again send back and ask them to raise the standings a little more—something absolutely illegal! The members of the board finally refused to raise the standing or have anything to do with these men unless they came regularly before the board.

Then the secretary called an extra meeting of the board. These fellows were scattered all over the United States. He called some of them in here and gave them a special examination in order to get them through.

Now that is what the board is doing today, and the three regular members are absolutely helpless on that board.

Now that is what we have to meet to-day, and I think we ought to change our law in order to stop it. Just what Dr. Sarles suggested—what the big concerns tried to do with the Journal of the American

Medical Association—the Press Association and the Milwaukee Medical College are doing with us.

SECRETARY: Did I understand Dr. McGovern to say that this state of affairs exists in our state, in Wisconsin?

DR. MCGOVERN: In our own state.

SECRETARY: That Dr. Stevens, after the examinations had been regularly held and marks recorded, would write to the members of the board that they should raise certain markings?

DR. MCGOVERN: Yes sir, he did that until a number of the members of the board refused, and he has, I believe, stopped that practice now, but he called an extra meeting of the board to accomplish the same purpose.

Q. Would the secretary have the authority to do that?

A. I do not know.

PRESIDENT CURRENS: He would if he got the permission of the president.

Motion carried and matter referred to the Committee on Public Policy and Legislation.

ELECTION OF COUNCILORS.

DR. BOOTHBY: Mr. President, there are two more things that ought to be attended to here this morning. The ten members of the committee on nomination should be named at this session, and the election of councilors for the 3d and 4th districts should be had. I move that the House of Delegates proceed to the election of councilors for the 3d and 4th districts.

CHAIRMAN: Will the Secretary read the names of the present councilors from the 3d and 4th districts.

SECRETARY: Dr. F. T. Nye, of Beloit, is councilor from the 3d district, and Dr. C. A. Armstrong, of Boscobel, from the 4th.

DR. BELL: I move that the Secretary be instructed to cast the ballot for Dr. Nye to continue as councilor in the 3d district.

DR. STODDARD: I move that the rules be suspended and that the secretary be instructed to cast the ballot of the House of Delegates for Dr. Armstrong to succeed himself.

Motion carried.

SECRETARY: I have the following communication from Dr. Pritchard:

Milwaukee, June 20, 1906.

To the President and House of Delegates of the Wisconsin State Medical Society.

Owing to lack of time to give to the councilor's duties I hereby tender my resignation as councilor of the Fifth district.

Respectfully,

J. F. PRITCHARD.

Motion made and carried that the resignation be accepted.

DR. CAPLES: I move that the secretary be instructed to cast the vote of the house under suspension of the rules for Dr. G. V. Mears, of Fond du Lac, for councilor for the 5th district in place of Dr. Pritchard, to serve out the rest of his time as councilor.

Motion carried.

DR. BOOTHBY: I move that we proceed to the nomination from the floor of the house of a committee of ten on nomination. It has been the custom to nominate them from the floor rather than to have them appointed by the president.

Motion carried.

The following nominations were made:
1st district, Dr. B. M. Caples, Waukesha.
2d district, Dr. J. P. McMahon, Union Grove.
3d district, Dr. Samuel Bell, Beloit.
4th district, Dr. C. A. Armstrong, Boscobel.
5th district, Dr. J. F. Pritchard, Manitowoc.
6th district,
7th district, Dr. Edward Evans, LaCrosse.
8th district, Dr. T. J. Redelings, Marinette.
9th district.
10th district, Dr. E. H. Grannis, Menominee.
11th district, Dr. M. S. Hosmer, Ashland.
12th district, Dr. H. E. Dearholt, Milwaukee.

DR. SARLES: I move that the list be adopted as read.

Motion carried.

SECRETARY: There are certain communications which have been sent to the Secretary during the year and it has been usual to refer these to a committee to report at a subsequent meeting of the house of Delegates. One is a request from the National Council of Medical Education and there are a number of others.

DR. SARLES: I move that those reports be given to the council committee which should meet at 2 o'clock today, and they then be reported to the House of Delegates for their action. Anything that goes beyond the council may be referred to the House of Delegates.

Motion made and carried that the committee on nomination meet at 8:30 tomorrow morning in this room.

Adjourned to 8:30 next day, Thursday, June 28, 1906.

THURSDAY, JUNE 28, 1906, 8:30 A. M.

Meeting called to order by Secretary.

Dr. Boothby was named as temporary chairman and took the chair.

DR. CAPLES: Dr. Edward Evans who was elected one of the nominating committee received a telegram requiring him to go home, and I move that Dr. W. T. Sarles be elected to act in the place of Dr. Evans on the nominating committee, from the 7th district.

Motion carried.

Roll was called and a quorum found present.

SECRETARY: This morning I got a nice letter and a check for $36, showing 18 members from Portage county, a gain of 2.

That makes our membership up to 1,435.

Minutes of last session read and approved.

DR. BOOTHBY: The by-laws can be amended at any annual session, by a majority vote of all the delegates present at that session, after the amendment is laid on the table for one day.

I have been talking to a number of members with regard to chapter 4, section 11 of the by-laws, which treats of the election of vice-presidents of this association.

It says: "It shall divide the state into councilor districts, specifying what counties each district shall include, and when the best interest of the society and profession will be promoted thereby, organize in each a District Medical Society, and all members of component county societies shall be members in such district societies. When so organized from the presidents of such district societies shall be chosen the vice-presidents of this society, and the presidents of the county societies of the districts shall be the vice-presidents of such district societies." The constitution says no delegate shall be elected to any office, and consequently if the president of the district society is a delegate you could not make him a vice-president of this society according to the constitution. I wish to change that so as to read that the vice-presidents of this society may be chosen from the presidents and past presidents of district societies. That will give you a greater number and as years go by it will give you plenty. I make that proposition to you so to have it lie over until tomorrow morning. There are quite a number of ex-presidents of district societies who would be eligible if this amendment is adopted.

DR. MEARS: Does not that have to be submitted in writing this morning?

DR. BOOTHBY: It is in writing, right on the constitution, and I submit it now. And I wish also to give notice that I shall ask to have chapter 5, section 2 of the by-laws, in relation to the nomination committee, amended.

It reads as follows: "Section 2. The House of Delegates on the first day of the annual session shall appoint a committee on nominations consisting of ten delegates, no two of whom shall be from the same councilor district. The committee shall report to the House of Delegates one or more names for each office to be filled. No two candidates for president shall be named from the same county. Any person known to have solicited votes for, or sought any office within the gift of this society shall be ineligible for any office for two years."

I propose to substitute the word "12" for "10", so that there will be one member of the nominating committee chosen from each councilor district. Each councilor district will then have a member on

the nominating committee, whereas now there are only 10 from 12 districts. I submit those changes for action tomorrow morning.

SECRETARY: This amendment that Dr. Boothby suggests, is I think, all right. It is a plan of the machine as it shall be when perfect. Your county society is the unit, your district society is the connecting link between the county and the state society; the state societies make up the American Medical Association—and there you have your machine built up on the broad foundation of county societies, and culminating in the American Medical Association; and the idea is that this organic connection shall be as close as possible, and that the connecting links shall not be too far apart. Therefore it is proposed that a district society shall be formed in every councilor district. If that were so we should have 12 district societies. In the past we have had the Central Wisconsin, the Northwestern, and the Intercounty, etc., and it is designed simply to substitute for these societies of the past, and, as a part of the machine, district societies which shall practically cover the same territory. For instance, our Central Wisconsin Society occupies practically the 4th District, that is the five counties of Rock, Green, Dane, Columbia and Sauk. When we have our meeting, as we shall on the 31st of July, we shall convert the Central Wisconsin into the 4th District Medical Society, and there will be no longer a Central Wisconsin Society. We shall not exclude any of the distant members, but we will all come together, and read papers just as before, but the name will be the 4th District Society, and if any "outsiders" want to come in they can. Then the presidents of these county societies shall be vice-presidents of the district society, and in turn the presidents of the district societies shall be vice-presidents of the state society, just as is contemplated in the constitution, that the presidents of the state societies shall be vice-presidents of the American Medical Association.

I think Dr. Boothby's suggestion is right in line with the spirit of the organization, and that it will make our plan a little more workable.

DELEGATE from the 6th District: How many district societies are organized?

DR. BOOTHBY: I think about four or five.

DELEGATE from the Sixth District: I was president and I do not think we ever had a district councilor in our society until Dr. MacCormack was there.

DR. BOOTHBY: It is just as much our business as councilors to organize district societies as it is to organize county societies. It is just as essential, because it is part of the plan, and if we do not do it we are not carrying out the plan laid out in the constitution—we are not perfecting the organization.

DR. WINDESHEIM: The district society of the second district has been organized three years, and Dr. Reynolds of Lake Geneva is president of that society and has been ever since that society was organized.

DR. SAUERHERING: At the time Dr. MacCormack visited us he managed to get men together from all over the district, and Dr.

MacCormack organized our district society. But we did not use good judgment and picked out too many men for the offices who never attended, and I have been endeavoring to have the Northwestern Wisconsin Medical society converted into the 9th District society. But I find a great deal of opposition to it, and the opposition comes from men not now residents of the district, men who have been members of that society for 20 or 30 years I believe, and they of course feel a little bit as if they would like to retain their independence. I have thought over this matter and about the only solution that I can find for the trouble would be to make all those members honorary members.

DR. BOOTHBY: That is the way we do. Do not charge any fee. Every member of the county society in my district is a member of the district society.

DR. SAUERHERING: Not only that, but the men who live in other districts want to retain their membership.

DR. BOOTHBY: Let them come in—there is no objection to that. You cannot make hard and fast lines on these things.

DR. SAUERHERING: My district extends now from Milwaukee to Eau Claire along the line of the Wisconsin Central.

DR. BOOTHBY: That is all right. We followed railroad lines as far as we could.

DR. SAUERHERING: If we could make that change we would have a good 9th district society.

DR. BOOTHBY: Have a meeting and make it.

SECRETARY: Make the same arrangement as we are going to in the Central Wisconsin. If we change its name to the 4th District Councilor Medical Society we need not necessarily change our membership.

DR. BOOTHBY: Is it not necessary.

SECRETARY: We need not necessarily interfere with the fraternal and society relations. Dr. Sarles belongs to the Central Wisconsin Medical Society, clear up in the 7th District, and he will come down and meet with us when he has time from his multifarious duties.

DR. REDELINGS: I want to make the suggestion that the state society select and employ a suitable person to do missionary work for a part of the year. It does not seem to me that it needs constant work. My observation was this, that personally we can enlist men whom we cannot reach or touch by correspondence. If you go to them and talk with them you can readily enlist them in the society's work. In our section of the country where men are scattered it really requires personal work. Most of the councilors find it difficult to give the necessary time to do this work themselves; if the state society could select a suitable person to make the rounds, as for instance Dr. MacCormack did, I believe that it would be a profitable investment and that you would get in men that you cannot reach any other way. You get them on your roll, and get their fees. It is a thing I think the society ought to consider seriously.

The council reported back the treasurer's report and found it to be correct.

Motion made and carried that the report of the council as an auditing committee of the treasurer's report be accepted and approved.

A recess was taken until next day, Friday, June 29, 1906, same place, 8:30 A. M.

FRIDAY, JUNE 29, 1906, 8:30 A. M.

Secretary called meeting to order.

Dr. Boothby selected to act as temporary chairman.

Roll called and quorum found present.

Minutes read and approved.

The following communications were read by the secretary:

Milwaukee, June 27, 1906.

Wisconsin State Medical Society, in Convention.

GENTLEMEN:—The Citizens' Business League notes with pleasure the presence of your organization in our city for your annual convention and we beg to express the hope that it will be your decision to meet here again next year.

We believe that the advantages Milwaukee possesses in point of easy access from all parts of the state; the large number and excellence of its hotels; and also the convenience of its meeting places are such as to contribute materially to holding successful and profitable conventions and with the greatest degree of comfort for those who attend them.

We assure you that a cordial welcome will always be extended to you whenever you meet in Milwaukee and we sincerely trust that your decision will be unanimous to return here next year.

Yours truly,

CITIZENS' BUSINESS LEAGUE.

R. B. Watrous, Secy.

Milwaukee, June 27, 1906.

Wisconsin Medical Society.

GENTLEMEN:—As Mayor of Milwaukee it affords me much pleasure to extend to you a hearty invitation to hold your convention for 1907 in this city.

We take particular pride in welcoming to Milwaukee our various state organizations. You cannot come to see us too often. There is no end to our hospitality and it will be our great pleasure to greet you whenever you visit this city.

Very respectfully,

SHERBURN M. BECKER, *Mayor.*

Superior, Wis., June 28, 1906.

Dr. Mason, Plankinton House, Milwaukee.

The Board of Directors of the Superior Commercial Club authorize me to request you to make every possible effort to secure the 1907 Medical Convention for the city of Superior. The club and the citizens will give you the glad hand, offer the best entertainments and will do everything possible to make your members satisfied with their visit.

A. J. PEDERSON,

Chairman of the Superior Commercial Club Convention Committee.

June 28, 1906.

To the House of Delegates of the State Medical Society of Wisconsin.

GENTLEMEN:—Your committee beg leave to report that in their opinion the regular medical profession is not adequately represented on the board of medical examiners, over 2,600 regulars being licensed in the state as against 200 homeopaths and 100 each of eclectic and osteopaths. We recommend, therefore, that the Committee on Public Policy and Legislation be instructed to investigate the subject and if thought advisable to introduce a bill seeking to remedy this defect.

Inasmuch as both homeopaths and eclectics are now admitted on an equal footing as members of the State Society, a demand that the board consist of a majority of regulars should be insisted upon.

JOHN J. MCGOVERN,
I. G. BABCOCK,
C. H. STODDARD.

ELECTION OF OFFICERS.

The report of the nominating committee was presented as follows:

For president, Dr. L. H. Pelton, of Waupaca.

First vice-president, Dr. A. J. Burgess, of Milwaukee.

Second vice-president, Dr. W. E. Ground, of Superior.

Third vice-president, Dr. W. T. Pinkerton, of Prairie du Chein.

DR. J. J. MCGOVERN: I move that the Secretary be instructed to cast the ballot of the House of Delegates, under suspension of the rules, for the report of the nominating committee.

Motion carried, and the nominees declared duly elected.

The committee on the state board matter then presented the following report:

DR. WINDESHEIM: I move that the report be referred to the Committee on Public Policy and Legislation.

Motion carried.

SECRETARY: I would suggest that this Committee on Public Policy and Legislation had better be appointed. We neglected to do so at the first meeting.

DR. WINDESHEIM: I think the same committee should be continued.

SECRETARY: The committee as at present constituted is composed of Dr. G. E. Seaman, Dr. W. T. Sarles and Dr. J. J. McGovern.

DR. MCGOVERN: Dr. Seaman and myself have been on this committee for ten years. If you have a new committee I think it would be an advantage at this time. They will throw it up to us that we are trying to work out some old grudge on some of the fellows that will be injured on the board by the change, and if you get an entirely new committee that they cannot criticise at all, I think it would be a great deal better, and we ought to have a man on that committee from way up in the northern part of the state, further north than Dr. Sarles is, and I suggest that somebody like Dr. Gray, secretary of the Milwaukee County Society, would be a very good man, and I also

suggest that a man like Dr. I. G. Babcock would be a very good man; he is from the northern part of the state.

DR. WINDESHEIM: I do not see why members of the committee who have done such good work in the past should he dropped. However, if Dr. McGovern's stand is all right, thinking that a new committee could do better, of course we should favor it. A new committee, however, in my opinion, could not do half as good work as the old and experienced committee, and I think that unless the old committee promises to do all in its power to help the new committee along, that it would be better to retain the old committee.

DR. BOOTHBY: The doctor thinks it a matter of policy to have a new committee.

DR. BELL: With the distinct understanding that the old committee will assist the new committee all they can, and we who are acquainted with them feel sure that they will do so, I move you that Dr. A. W. Gray and Dr. I. G. Babcock constitute two of that committee.

Motion carried.

Dr. Dearholt nominated Dr. O. H. Foerster as the third member of the committee.

Nomination seconded and unanimously carried.

CHAIRMAN: The committee then is Dr. Gray, Dr. Babcock and Dr. Foerster.

AMENDMENTS TO BY-LAWS.

SECRETARY: Dr. Boothby's proposed amendments come up to be acted upon this morning.

CHAIRMAN: The original question is on making the past presidents as well as the presidents of district societies eligible to the vice-presidency of this association.

Unanimously carried.

The section of the by-laws as amended reads as follows:

"Section 11. It shall divide the state into Councilor Districts, specifying what counties each district shall include, and, when the best interest of the society and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies shall be members in such district societies. When so organized, from the presidents or past presidents of such district societies, shall be chosen the vice-president of this society, and the presidents of the county societies of the district shall be the vice-presidents of such district societies."

DR. BELL: I move that the councilors be instructed to make Milwaukee county a district society.

Motion carried.

The following amendment proposed by Dr. Boothby of chapter 5, section 2 of the by-laws was then presented:

"Sec. 2. The House of Delegates on the first day of the annual session shall appoint a committee on nominations consisting of 12 delegates, no two of whom shall be from the same councilor district.

The committee shall report to the House of Delegates one or more names for each office to be filled. No two candidates for president shall be named from the same county. Any person known to have solicited votes for or sought any office within the gift of this society shall be ineligible for any office for two years."

Motion made, seconded, and unanimously carried adopting the amendment.

The secretary then read the following communication:

AMERICAN INTERNATIONAL CONGRESS ON TUBERCULOSIS.

Austin, Texas, June 5, 1906.

DEAR COLLEAGUES:—We have the honor to inform you that we are instructed by the Committee on Invitations to advise you that your body is cordially invited to send delegates to the meeting of the American International Congress on Tuberculosis to be held in the city of New York, November 14, 15 and 16, 1906, next, and to send a list of the same as soon as convenient to the secretary to enable our committee to arrange for a reduced transportation for the same.

It is highly desirable that the efforts of sanitarians and of all enlightened humanitarians, lay and professional, should be unified and concentrated in the endeavor to limit the spread, and as far as may be possible, to remove the causes of the great scourge of the human family.

There is and should be no spirit of rivalry, all the organizations for this laudable work should co-operate for the accomplishment of the great end sought.

With assurances of high esteem and regard and an earnest desire that every organization interested or engaged in this conflict with Tuberculosis may combine their efforts in a common cause, we remain,

Very faithfully yours,

F. E. DANIEL, M.D., President, Austin, Texas.
CLARK BELL, LL.D., Treasurer, 39 Broadway, N. Y.
MATHEW M. SMITH, M.D., Secretary, Austin, Texas.
H. EDWIN LEWIS, M.D., Vice-Chairman of Council.
100 William Street, New York.

Reply to secretary at Austin, Texas.

DR. DEARHOLT: I move that the appointment of a delegate to the tuberculosis association be left to the incoming president.

Motion carried.

The Secretary then read the following communication:

AMERICAN MEDICAL ASSOCIATION.

103 Dearborn Avenue, Chicago, February 1, 1906.

Dr. Charles S. Sheldon, Madison, Wis.

DEAR DOCTOR:—We are enclosing herewith a reprint of the report of the Council on Medical Education made to the American Medical Association at the Portland Session, July, 1905.

In order to accomplish the most and bring about a standard for medical education that will place our country in the lead in these matters, it is essential that the council have the earnest interest and co-operation of the entire

medical profession through the various State Medical Associations and Societies.

If your Society does not already have a committee or Local Council especially dealing with medical education, could you not appoint such a committee to co-operate with the Council and the various State Examining Boards to further this work? This, if possible, should be a permanent committee, say of three members, to serve for one, two and three years, respectively, a new member therefore to be appointed each year.

Should it be impossible to secure such a committee in the near future, could you give us the names and addresses of two or three members of your board who might serve temporarily in such capacity?

Feeling assured that we shall have your co-operation in this regard, we are, Very truly yours,

COUNCIL OF MEDICAL EDUCATION,
Per N. P. Colwell.

A copy of this letter sent to your president.

DR. MEARS: I move that the matter be referred to the incoming president with power.

Motion carried.

CHAIRMAN: The next order of business will be place of meeting.

DR. WINDESHEIM: I should like to propose to the House of Delegates the question of helping the councilors do some missionary work among the members of the profession when we try to get in new members of the society we tell them—you will get the JOURNAL free, and they say, what is your JOURNAL? what does it consist of? It would not be a great expense to the society and it would help the councilors along to work up interest among the profession, if extra copies of the JOURNAL were furnished.

I therefore move that the House of Delegates instruct the publishers of the JOURNAL to furnish the councilors two or three extra numbers of the JOURNAL every month to distribute.

DR. DEARHOLT: The publishers of the JOURNAL last year attempted to send sample copies to pretty nearly every eligible physician in the state of Wisconsin. We wrote several letters and asked the coöperation of the secretaries and councilors. We did not get a great deal of coöperation. For several months we published extra journals and sent them out, and we will always be very glad to do that for missionary purposes without any pay from the society.

DR. BOOTHBY: If the councilors will send for them they will get them.

DR. DEARHOLT: The journals cost us about ten cents a copy, and we had rather not send them out if they are not to be used, but we will be glad to put any councilor on the list for any number of journals that he will actually use.

Another thing, we urge that something more be done about using this inducement for membership. Every month we write probably four to five letters to physicians out in the state who refuse because they do not understand the status of the JOURNAL. Our stenographer writes from five to ten letters a month explaining to new members

that they are entitled to the JOURNAL, and they ought to know it before joining the society. I believe that the JOURNAL is inducement enough to bring a great many more men into the society, and I think every man here should bring it before his county secretary and councilor and impress upon the physicians throughout the state that every member of this society is entitled to a subscription to the JOURNAL without extra charge.

DR. WINDESHEIM: There is another question which I should like to bring before the house, and that is the question of the meetings of the House of Delegates. Last year and also this year I have noticed that a meeting of the Council and the House of Delegates is set for the day before the beginning of the June meeting. Now, it is almost impossible to bring a quorum together of the House of Delegates on the day before the meeting. Not only that, but those who come that day come at a great sacrifice. Sometimes it makes quite a difference whether you can run into town early in the morning or whether you have to come the day before, especially if you meet at a place where railroad facilities are not any too good. I think it would be wise to instruct the program committee as to the necessity, or rather the advisability, of having the first meeting of the House of Delegates on the evening of the first day. The evening of the first day of this session we had a smoker at the rooms of the Milwaukee Medical Society at the Goldsmith building, and it was a very pleasant affair, but between the hours of the closing of the general meeting and the time before that smoker we would have had about two hours at least in which we could have transacted the business of the House of Delegates, and there would have been a large number of the delegates present—the councilors would all have been present, and a great deal of business could have been transacted.

SECRETARY: I move that the contract of last year with the Wisconsin Medical Journal be renewed for the coming year.

Motion carried.

Motion was made that the matter of the place of meeting for 1907 be taken up.

DR. BABCOCK: I would suggest Superior. We have in that part of the state a great many young men who are just starting out in life, and when you attempt to get them to join the medical society they say, well, you always meet in Milwaukee, or some place near there and we cannot go. I have done a good deal of work in the counties of Barron, Polk and Rusk, and I have met with this objection frequently. I seldom or never see these men here. Now would it not be advisable, say once in ten years, to go up in the northern part of the state and get these men interested? It is worth while to have them with us. They are very good men in that part of the state and men worth having in the state society.

DR. BOOTHBY: It seems to me we should decide on the time of the annual meeting. The American Medical Association suggests that the state societies meet in the fall, because the American Medical Association generally meets in June or early in the season, and they have asked that all state societies defer their meeting until later in the summer.

DR. BABCOCK: I move that we meet at the same time that the Minnesota State Medical society meets—that is for the next annual meeting.

Motion seconded.

SECRETARY: I move that we ballot for the place of meeting.

DR. HALL: Perhaps it would be well to attach a rider to that motion, giving the council discretion to change if there is any cogent reason why the date should be changed. For instance, if we do not meet in Superior we might not want to meet the last of August.

Amendment accepted.

Moved and seconded that the state society meet in annual session in 1907 in Superior, the last week of August.

DR. MEARS: I think it would be just as well to settle a place of meeting and let the council settle the time.

DR. BELL: Let the time of meeting be subject to the call of the president.

DR. BABCOCK: I withdraw my motion as to the time.

CHAIRMAN: Then you are voting on the place of meeting entirely.

A ballot was taken and the chairman announced the result as follows:

8 for Superior, 4 for Milwaukee, 1 for Ashland.

Superior having the majority the House decides that the next annual meeting will be held there.

DR. DEARHOLT: There has been some question raised at the last meeting of the American Medical Association by the postal authorities about the rate charged for the JOURNAL. Do you understand that?

DR. BOOTHBY: I do not understand it. I think Dr. Sarles is the only man that does.

DR. DEARHOLT: It is something to the effect that the straight subscription price of the Association Journal must be announced. In Wisconsin the division was made at 80 cents for dues and $1.20 for the JOURNAL.

DR. HALL: You must set aside a certain amount for subscription to the JOURNAL, say $1.20.

DR. CAPLES: That was suggested at the American Medical Society, that a certain amount be set aside for the subscription to the JOURNAL.

DR. BOOTHBY: That can be done by the council.

DR. DEARHOLT: I move that the matter of the details of this plan, if necessary, be referred to the council for their action. Carried.

ADJOURNED.

SECOND DISTRICT MEDICAL SOCIETY.

The third annual meeting of the Second District Medical Society was called to order at the Y. M. C. A. Bldg. by the president, Dr. J. C. Reynolds of Lake Geneva.

After the usual business program, Dr. W. H. Saunders of Kenosha read a very interesting paper on *Contract and Club Practice.* The paper was enthusiastically received and was discussed by Drs. Cleary and Windesheim of Kenosha, and Dr. Nott of Racine.

A paper on *Patent and Proprietary Medicines*, written by Dr. Wm. Hanover of Delavan, was read by Dr. Seely of Lake Geneva, Dr. Hanover being unable to be present.

At 12:30 the meeting adjourned to the Hotel Eichelman for dinner as guests of the Kenosha County Medical Society.

At the afternoon session Dr. Daniel Lieberthal of Chicago gave a very interesting address on *Management and Prognosis of Syphilis.*

The concluding number on the program was furnished by Dr. Richard H. Brown of Chicago in an address on *Submucous Resection of the Septum.*

The president appointed a nominating committee which presented the following report: For president, Dr. W. A. Fulton, of Burlington; for Secretary and Treasurer, Dr. J. R. Eastman, Kenosha.

On motion the Secretary was instructed to cast the ballot of the society for Drs. Fulton and Eastman, for president and secretary respectively.

The committee further reported Burlington as their choice for the 1907 meeting.

After adjournment the visiting members were taken for a ride about the city in "Rambler" touring cars furnished by the generosity of the Thomas B. Jeffery Co.

There were 41 physicians present at the meeting.

J. P. McMAHON, M. D., *Secretary.*

DUNN COUNTYMEDICAL SOCIETY

The regular monthly meeting of the Dunn County Medical Society was held at the Hotel Royal, Menomonie, Aug. 21st.

Dr. G. A. Barker read a paper on *Scarlet Fever*, paying special attention to treatment; Drs. Grannis, Larson and Decker took part in the discussion. Dr. A. Egdahl read a paper on *Some Recent Works on Joint Diseases*, bringing out many new and valuable points.

The president appointed a committee of three to select a paper from this county to be read at the Western District Society meeting at Eau Claire in November.

Upon motion it was decided to hold a picnic instead of the regular meeting in September, at Downsville, for society members and their families.

F. E. BUTLER, M. D., *Secretary.*

LANGLADE COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Langlade County Medical Society was held at Antigo, September 7th, with a very good attendance.

Dr. G. S. Bellis read a paper on *Pneumonia and its Treatment*, which was complete and very interesting. The doctor brought out many new points in regard to the treatment, which was followed by a discussion opened by Dr. M. J. Donohue and all other members taking part.

Dr. W. F. Austria presented an application for membership in the society, which will be acted on at the next meeting.

GEORGE MOORE, M. D., *Secretary*.

WALWORTH COUNTY MEDICAL SOCIETY.

The September meeting of the Walworth County Medical Society was held in the Y. M. C. A. Building, Lake Geneva, September 5, 1906. Two new members were taken into the society, Dr. C. M. Bradley of Genoa Junction and Dr. R. M. Vorpahl of Springfield. The names of Drs. Hugh E. Lindsay and Clark J. Miller of Whitewater were proposed for honorary membership. These men are 66 and 64 years old respectively, and the discussion brought out the fact that they were members of the old State Society for something over 30 years each. After discussing the matter thoroughly it was decided that these men had earned an honorary membership in the society, and by a unanimous vote they were made honorary members.

The doctors and their wives, the dentists and their wives, and the nurses of the county had been invited, and some fifty people listened to the following program:

1. "The Patent Medicine Evil".....Dr. N. L. Seelye
   Discussion opened by Dr. B. J. Bills.
2. "Report of a case of Eclampsia".....Dr. Wm. H. McDonald
   Discussion opened by Dr. R. E. Rugh.
3. "Report of a Pair of Incubator Babies".....Dr. M. V. Dewire
   Discussion opened by Dr. A. E. Henby.
4. "Syphilis".....Dr. F. E. Matter
   Discussion opened by Dr. J. C. Reynolds.
5. "The Logical Relation of Dentistry to Medicine"..B. C. Campbell, D. D. S.
   Discussion opened by A. S. Barber, D. D. S.

At 2 P. M. all adjourned to the Dennison Hotel where a bounteous repast had been prepared. President Young presided and after the inner man and woman had been satisfied, the following toasts were given:

Toast Master—Dr. Geo. H. Young. "A dinner lubricates business," Lord Stowell.

Toast—"The M. D.'s"—Mrs. M. V. Dewire.

"Use three Physicians, still first Dr. Quiet;
Next Dr. Merry-man, and then Dr. Dyet."—An Old Work on Health.

Toast—"The Doctor's Wife," Dr. B. J. Bills.

"Earth's noblest thing, a woman perfected.—Lowell.

Toast—"The Bright Side of Nursing," Miss Nettie Heyer.

"For there never was yet a philosopher
That could endure the toothache patiently."—Shakespeare.

Toast—"The Mental Meanderings of the Dental Brother," B. C. Campbell, D. D. S.

"A jest's prosperity lies in the ear of him that hears it,
Never in the tongue of him that makes it."—Shakespeare.

Following the dinner all went on an excursion around beautiful Lake Geneva, and when the day was finished all voted we had a decidedly successful meeting and a very pleasant time.

The Walworth County Society now enrolls seventy-four per cent. of the physicians in the county. The next meeting is to be held in Elkhorn some time in November.

M. V. DEWIRE, M. D., *Secretary*.

BOOK REVIEWS.

Surgical Pathology and Treatment of Diseases of the Ear.—By CLARENCE JOHN BLAKE, Professor of Otology in Harvard University, and HENRY OTTRIDGE REIK, Associate in Ophthalmology and Otology, John Hopkins University. D. Appleton & Co., New York.

This work begins with a chapter upon the Surgical Anatomy of the Temporal bone and Adnexa, the description being clear and copiously illustrated by photographic and diagramatic plates. The text and illustrations of irregularities in the anatomy of the mastoid are particularly interesting and instructive, as is also the following chapter devoted to "Aseptic Technique". Chapter VII, devoted to operative procedures upon the mastoid, is carefully and conservatively written. The various operations are treated in a clear and lucid style. The writers seem to take exception to the plan advocated by Whiting for the complete ablation of the apophysis in all cases, holding the more conservative view that "the operation to include the rest of the zygoma in all cases is objectionable on the ground of its possible superfluity". Chapter VIII is devoted to "Adventitious Aural Surgery", dealing with adenoids and their treatment, Lumbar Puncture, Subcutaneous Infusions and Intravenous Medication.

The work closes with an appendix containing many valuable notes, by various authors, upon Paracentesis, Brain Abscess, Operations upon Ossicles, Hearing tests, and the value and use of certain test and operative instruments.

The advent of this book will undoubtedly be thoroughly appreciated both by the special and general profession, containing as it does much of the wide personal experience of the authors. Indeed, this work may be said to occupy a unique position inasmuch as the authors have covered a field singularly wide and at the same time have eliminated much of the obsolete, found in many of the standard text-books.

H. B. H.

Diseases of the Nervous System Resulting from Accident and Injury.—By PIERCE BAILY, A. M., M. D., Clinical Lecturer in Neurology, Columbia University, New York. D. Appleton & Co.

This book is a recasting of a former work by the same author, and is much revised and enlarged in its scope. It is written from the neurologist's standpoint. It is quite a comprehensive guide for dealing with the so-called 'traumatic neuroses'. The consideration of "organic effects" of injury constitutes the first part of the book. Especial attention is given to the late effects of injuries as distinguished from the acute and immediate effects as dealt with by the surgeon.

The presentation of functional effects occupies the second part of the book and includes treatment. Part 3 is occupied with "medico-legal considerations". The book is well illustrated and is a work capable of rendering much assistance in this field for both the general practioner and the specialist.

R. D.

A Manual of Medical Treatment or Clinical Therapeutics.— By I. BURNEY YEO, M. D., F. R. C. P. W. T. Keener & Co., Chicago. $5.00 net.

The enormous sale this book has enjoyed since the publication of the first edition in 1893, is witness of its popularity in England. It has been reprinted 14 times, and twice revised, the present being an American edition of the second new and revised edition. Although termed a "Manual" of Medical Treatment, this name doubtless refers only to the size of the volumes and must not be construed that it belongs in the category of the compendium series of text books. In fact, the subject matter is comprehensively treated, the text covering 1500 pages. The author approaches the subject of therapeutics not from the side of the drug, but, as is more rational and undoubtedly more valuable, from the side of disease. It has been the author's aim "to deduce rational indications for treatment from an examination of the pathological nature and the clinical course and characters of the disease under discussion." He has succeeded admirably in presenting the material in an unusually attractive and practical manner. The treatment of various conditions is entered into in considerable detail. In Part 1 are considered diseases of the digestive organs, the heart and blood vessels, the blood and ductless glands, the organs of respiration, and pulmonary tuberculosis. Part 11 continues the excellent treatise on the treatment of tuberculosis begun in Part 1, and deals further with diseases of the liver, urinary and renal affections, nervous system, constitutional and specific infective diseases. Prescriptions are liberally interspersed in the text, and a number are added to each chapter.

Yeo's Manual is one of the very best practical textbooks on "Treatment" with which we have come in contact, and well deserves the hearty approval of student as well as practicing physician. A. J. P.

A Compend of Materia Medica, Therapeutics, and Prescription Writing.—By SAMUEL O. L. POTTER, M. D. M. R. C. P. Lond. Seventh Edition. P. Blakiston's Son & Co., Philadelphia. $1.00.

This, the 7th edition of one of the most popular of Blakiston's Quiz Compends, has been brought into conformity with the 8th revision of the U. S. Pharmacopoeia. While the general character of the book as to conciseness and brevity, is like preceding editions, many chapters have undergone revision, others have been entirely rewritten, and numerous paragraphs pertaining to the newer drugs and preparations have been added, so that this volume now represents a thoroughly up-to-date compendium of materia medica and therapeutics. It can be recommended to students as a satisfactory and ready reference book, aiding them in crystallizing the material presented in the large text books. A. J. P.

The Medical Diseases of Egypt.—Part 1. By F. M. SANDWITH, M. D., F. R. C. P., of Cairo. Henry Kimpton, London.

The author dedicates this work to his medical colleagues in Egypt. It is an amplification of his lectures to the students of the Egyptian Govern-

ment School of Medicine. In writing this book he has borne in mind the needs of three classes of readers: "the Egyptian student of medicine, past and present—the newly appointed English doctors who are suddenly placed in positions of responsibility in Egypt, without any knowledge of what sort of diseases they are likely to meet with among the natives—and the large and increasing number of colleges in Europe and elsewhere, who are interested in the behaviour of medical diseases in foreign countries."

The undoubted value of this work to those directly interested is very evident, and while the general reader in this country may not be much concerned with detailed information about such diseases as Mediterranean Fever, Plague, Typhus, Bilharziosis, Ankylostomiasis, and Pellagra, the possibility of their gradual dissemination, and their occasional or accidental appearance nearer home, add a decided interest to a treatise by one who, by intimate contact and close study, has familiarized himself with these diseases. In addition to the endemic diseases mentioned, the author treats of the more familiar fevers, such as relapsing, enteric, small pox, influenza, and glandular fever, and in less detail of mumps, pertussis, measles, etc.

One of the interesting features of the book is found in a chapter containing data dealing with the history and geographical distribution of each disease prior to the consideration of its symptomatology. Literary references are appended to each chapter.

While no claim is made that this volume is to be considered a text-book on the diseases treated—in fact, the author assumes in his preface that his "readers are at least possessed of such an excellent handbook on general medicine as that of Dr. Frederick Taylor or Professor Osler",—there is contained in it much that is extremely valuable from a practical standpoint, and much that is interesting from the standpoint of the history and geographical distribution of the diseases treated. And not the least agreeable feature is the delightful style and entertaining character of much of the contents.

We look forward to an early appearance of the 2d volume that is to complete the infectious diseases and begin those of the nervous system.

Abbott's Alkaloidal Digest.—By W. C. ABBOTT, M. D. The Clinic Publishing Co., Chicago.

The volume, by the editor of the American Journal of Clinical Medicine, is devoted to the well known Alkaloidal Therapeutics. It contains a brief description of some of the principal alkaloidal preparations, with suggestions for their clinical application, numerous case reports of successes, and many hints that will be found exceedingly useful and helpful in daily practice. An index and price list of Alkaloidal Laboratory Products is appended.

A. J. P.

CURRENT LITERATURE.

Elbow Joint Injuries.—The evil consequences of elbow joint injuries in the way of disabilities are remarked on by S. L. McCURDY, Pittsburg, Pa. (*Journal A. M. A.*, July 21), and he reports three cases. In the first case the joint had been shattered by a gunshot wound, but he succeeded in giving a useful arm by resecting a portion of the end of the humerus and also the bones of the forearm. In the second case there was compound dislocation. The external condyle, including the entire radial articulation, was broken away, all the extensor muscles were extensively lacerated and amputation was expected. The fractured olecranon was wired and the muscles reattached as nearly as possible to positions permitting normal functions. The arm was dressed in extension with the thumb up. At the end of eight weeks the adhesions were broken up under anesthetics and forcible manipulations practiced, the patient being allowed to use his arm as much as he wished. The result was practically perfect. The third case was one of forward dislocation of the head of the radius which rested on the anterior condyle of the humerus. The difficulties of repairing this dislocation are mentioned and the author describes an operation which consists "in making a longitudinal incision immediately over and down to the head of the radius. The head is dissected out and cut off with a Gigli saw. An effort is now made to flex the forearm. If this can not be done, another half inch of the bone is removed and the forearm again flexed. If complete flexion can not be made, other segments must be removed until a range of motion can be made. The wound is now closed, and under proper precautions should be well in two weeks." A radiogram is given showing the result of this operation.

Cesarean Section in Placenta Praevia. W. A. BRIGGS, (*Journal A. M. A.*, May 12), reports four cases of placenta praevia, in two of which he operated successfully by Cesarean section. In one case he also succeeded in saving the child. His ideas are summed up substantially as follows: 1. Every pregnant woman should be examined during the sixth month for this possibility and its degree. The examination should be bimanual, both of the vagina and rectum, and stethoscopically by the vagina and abdomen. 2. In case of central placenta praevia, elective Cesarean section of Saenger type should be done at the earliest period of viability of the fetus consistent with safety of the mother. 3 In case the fetus is dead and labor is not spontaneous, it should be induced after shutting off placental circulation. 4. In emergency cases, with the woman not exsanguinated and an experienced operator at hand, the Saenger operation should be preferred if the uterus is clean or only superficially infected. The Porro operation should be selected in case it is positively and deeply infected. (a) In cases of total placenta praevia with (1) undilated and undilatable cervix; (2) cancerous or fibroid cervix, pelvic tumors, pelvic contraction or other obstacle; (3 ruptured sac with escape of amniotic fluid and presenting, but undescended, head. (b) In cases of lateral placenta praevia with living child, uncontrollable bleeding, and either (1) undilatable cervix or other obstacle to the usual obstetric procedure; or (2)

ruptured and emptied sac with presenting but undescended head. 5. In elective cases full and systematic preparation should be made and the operation performed with every precaution and appliance that is called for. 6. In imperative emergency cases the surgeon must operate with whatever means are at hand. 7. Hemorrhage may be prevented by giving a full hypodermic dose of ergot ten minutes before operation, by compressing the aorta as soon as the child is delivered, grasping the neck of the uterus low down with both hands and firmly compressing the uterine arteries and by faradic stimulation of the uterine muscle. 8. Shock may be obviated and relieved by prevention of hemorrhage, by rapid operation, by the use of physiologic salt solution by the rectum and otherwise, by hypodermic or intravenous use of adrenalin solution and by aortic compression. 9. In the after-treatment purgation should be avoided; colon injections of saline solution, from 8 to 16 ounces, may be given at from three to eight-hour intervals; enemata may be used. 10. Any evidence of uterine infection must be met by vigorous measures of local disinfection by means of antiseptic exosmosis and drainage.

Kidney Fixation. From his experience with the operation, J. H. CARSTENS, (*Journal A. M. A.*, May 12), concludes that movable kidneys can be permanently fixed by proper technic. Many disturbances of digestion are due to this cause, probably by the effect on the sympathetic system and, possibly, on the solar plexus, and some of these may be relieved by fixation. Many of the nervous symptoms also can be relieved. A correct diagnosis must be made prior to operation, and any reasonable doubt as to the kidney being the cause of the trouble must be removed. Of course operation can not relieve such organic conditions as gastric cancer, bowel obstructions, etc. He gives a condensed report of twenty-five cases occurring in his practice which he thinks ought to give a fair average of general results. In all cases the kidney remained in place, also found that fixing a loose kidney and decapsulating it pretty thoroughly, relieves, he thinks he might say cures, the early stages of Bright's disease. He has never lost a case, and thinks the mortality should be absolutely *nil*. He keeps the patient in bed 15 or 16 days and allows them to leave the hospital in three weeks.

Nasal Disease and Neuralgia. L. S. Somers, Philadelphia, (*Journal A. M. A.*, September 8), describes and gives illustrative cases of various types of facial neuralgia occurring from disease of the nose and its accessory sinuses. Nasal neuralgia, *per se*, does not necessarily follow from disease of the nose itself, the pain there located may be due to changes in other regions, as the Gasserian ganglion, etc., although the nose itself, he states, may be diseased, as a consequence rather than as a cause. Of all the disorders of the nasal chambers, exclusive of sinusitis, hypertrophy of the turbinates, especially the middle one, is the most frequent cause of neuralgia. Pressure of the turbinate against the septum may cause both facial and supraorbital neuralgia, the latter from irritation of the nasal branches of the fifth nerve and aggravated if there is also sinus involvement. Acute rhinitis with excessive congestion and intranasal swelling, especially if sinusitis coexists, may cause neuralgia, and in the later stages, when there is purulent discharge with obstruction, trans-

sient neuralgic pains are not infrequent. While slight irritation of the nose may cause enough nervous instability to give rise to neuralgia, in the majority of cases, as shown by one reported by Lermoyez, actual nerve changes are present. Neuralgia from maxillary sinus disease is probably less frequent than that from frontal sinusitis, though the nerves are more exposed. The pressure from retained morbid secretion, owing to the anatomic conditions, is rather less common than in frontal sinus disease, but any severe facial pain should direct attention to the maxillary sinus. Acute inflammation of the frontal sinus is always accompanied with headache and often with severe neuralgia. In all forms of frontal sinusitis, from whatever cause, supraorbital neuralgia of the affected side is not infrequent. Rarely the pain is occipital and then the diagnosis is liable to be confused. Empyema of the ethmoid cells is more likely to cause headache, but may give rise to occipital and frontal neuralgia, and the latter may be due also to sphenoidal sinusitis, though here also headache is most common. Lastly, he mentions neuralgia associated with combined or multiple sinusitis and intranasal disease, which is the most bizarre and confusing of all. One can not be sure in these cases of its relation to any particular changes in the nose or sinuses until all the affected parts have been approximately restored to their normal conditions. Illustrative cases of neuralgia from the various forms of nasal disease are reported.

Postcritical Fever and Other Sequels of Pneumonia. J. E. Talley, Philadelphia (*Journal A. M. A.*, September 8), reports cases of a number of conditions giving rise to febrile symptoms after the crisis of croupous pneumonia, including among them empyema, abscess, endocarditis and pericarditis, relapsing pneumonia, pleurisy, bronchitis, otitis media and meningitis, parotitis, hemorrhagic nephritis, thrombosis, neuritis and colitis. The causes, therefore, he concludes are manifold and are often revealed only after careful and repeated examinations. Even if such examinations are apparently negative, one should be slow in attributing the fever to delayed resolution or to autolysis alone. More often, he thinks, a varying persistence of a purulent tendency, especially in the stage of gray hepatization, will explain the fever. Minute abscesses, hard to detect, or even a single one, may be responsible. The *x*-ray, he states, is of rather doubtful value in detecting such conditions; a thickened pleura embarrasses this means of diagnosis. The reported cases of cardiac complications in the paper hardly indicate the real importance that should be attached to this cause as a factor in many fatal cases. One should always be on the alert for this complication, especially in patients who have an old endocarditis, or atheroma. The right side of the heart, as his cases show, is not always uninvolved. The development of a systolic murmur may be explained by anemia or muscular weakness, but the development also of a diastolic murmur usually means genuine endocarditis.

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ORIGINAL ARTICLES.

SURGICAL SHOCK.*

BY JAS. S. REEVE, M. D.

APPLETON.

There are few things which make a more profound impression upon a medical student than a severe and typical case of shock. A fatal case he instinctively attributes to the gross lesion inflicted, such as fracture of the pelvis, or rupture of the liver, and it requires some reflection to demonstrate that whatever remote and doubtless fatal consequences might come from, for instance, a rupture of the liver, a simple solution of its continuity would not cause an immediate lethal exitus.

But what does cause the *"exitus lethalis?"* What is shock? Why does it kill? How does it kill? What is there in a case of shock which cannot be so operated upon by drugs or other remedial measures as to counteract with certainty the tendency of the victim to yield up his spirit?

Before venturing to define shock, a few preliminary observations may be allowed. In the first place shock is not a disease or a process. It is rather a state or condition,—a deviation from a certain necessary balance of functions which marks the equilibrium of the curve of health. A man who has received a shocking injury has the same organs that he had a moment before, and no one of them may have received any gross or microscopic lesion. Herbert Spencer defines

*Read at the 60th Annual Meeting of the State Medical Society of Wisconsin, June 28, 1906.

Life as "The continued adjustment of internal relations to external relations." (1) Natural Death, then, would be a lack of correspondence between internal relations and external relations. Shock seems to be a state on the border-line between these two. The depressed heart, the partly paralyzed vaso-motor system, the weakened mental functions struggle to adapt themselves to their suddenly altered conditions,—to maintain the essential correspondence between the internal and external relations of Spencer. They succeed, and the shocked victim slowly wins out; they fail, and this essential correspondence grows less and less adequate, ceases altogether, and death ensues. Shock is a sort of half-way house between life and death, where the patient cannot long abide, but out of which he must presently emerge, as it were, by the front or the back door.

Many definitions of shock are to be found. Many of them include too much. The cause of shock, or the condition produced by shock are often described as shock itself.

I will venture to define shock as "nervous deluge." From some outside agency, such as a crushing injury, or an extensive burn, carrying an enormous number of nerve-impulses to the brain and spinal cord, there is poured in on the central nervous system so much at one time that the latter cannot take it all in. It is overwhelmed—inundated, as it were, by so extraordinary a dose of sensation that it breaks down for the time being more or less completely. If completely, then the shock is fatal; if incompletely, then the system gradually gets the upper hand, and the nervous chaos is replaced by the usual order of things.

To make a very crude illustration, imagine the result if every telephone in the city called up central at once. It would be impossible to answer all the calls, or even understand them. The operator would be overwhelmed—paralyzed by the demand made, and would struggle more or less efficiently, or give up in despair.

We may see evidences of shock, under the above definition of a strictly local nature, and a large member may be locally shocked without much involving the central system, but in shock as we generally understand the term the spinal centers are involved, and finally the cerebral cortex is overwhelmed, causing more or less numbness of mentality, or even unconsciousness.

Under this definition the effects of shock may be argued from the condition of the nervous system, and it is this condition which is often spoken of as shock itself. The essential thing is a tremendous depression of the whole system, affecting every nerve and cell in the

body, impairing vitality and perverting function. If you shock the cerebral cortex you shock every part of the body.

Confusion sometimes arises from the fact that trivial causes may operate to cause shock, acting in the presence of certain other conditions of a grave nature, and these latter are wrongly said to cause shock. Thus, the causes of shock are frequently spoken of as prolonged anesthesia, loss of blood, exposure, etc. Now, if we remember our definition of shock as nervous deluge, it is evident that these things cannot, strictly speaking, cause shock. The amount of deluge, —the dosage, as it were, is not fixed. A small dose may, under some conditions, deluge the brain, when a large dose would not at other times do so. Thus, acute anemia does not produce nervous deluge. But it does weaken vitality, and lessen the amount of blood in the body. Then when there is added to this the effect of even a slight operation, the impulses carried to the brain overwhelm it just as certainly as if the dose were a huge one. This is analogous to the way chloroform and hemorrhage act together. On a patient who bleeds violently the anesthetic acts more freely. Hemorrhage does not cause shock, any more than it causes anesthesia, but just as in the presence of hemorrhage a slight amount of chloroform will do the work of a large dose normally, so in the presence of hemorrhage a slight amount of nervous insult will induce shock.

Strictly speaking there is no pathology to shock. But there are perverted functions, and to these may be traced the death which too often ensues.

The most striking thing about a case of shock is the great fall of blood-pressure, and this fall is strikingly like that produced by section of the spinal cord. But in the latter we have a true vasomotor paralysis, and it will not do to argue that the two conditions are identical. In fact, this essential and highly interesting difference has been pointed out by Vale (2) of Washington. In section of the spinal cord the tissues are drained of fluid, exactly as in a hemorrhage. Fluid from the tissues is added to the blood, the specific gravity of the tissues being raised, and of the blood lowered. But in surgical shock a condition quite different from this occurs, a condition resulting in inspissation of the blood. An outpouring of lymph into the tissues occurs, as a result of the perverted function of the endothelial cells of the capillaries, and this leaves the blood bereft of its more fluid elements, rather than the tissues generally, so that the feeble heart can push it along but sluggishly through the smaller vessels, on account of increased friction. The specific gravity of the blood is always increased in shock. A patient in shock greatly resembles one

in the algid stage of cholera, where the same loss of blood into the tissues occurs. Under such circumstances the heart becomes still further embarrassed, and the blood accumulates largely in the abdominal vessels. The patient is then said to bleed to death into his own veins, a statement more graphic than accurate; for if the heart were not itself shocked, and if it did not have to pump inspissated blood it could probably empty the capillary lake, and prevent this suicidal hemorrhage.

Thus it is not strictly accurate to attribute the fall in blood-pressure simply to vaso-motor paralysis, and to liken the condition to that produced by section of the spinal cord. The nervous insult must always be born in mind to appreciate the exact conditions, and to adequately remedy them. The vaso-motor system suffers with the rest of the body, all functions being depressed far below the danger-point.

TREATMENT:—It is not enough to make a diagnosis of shock, and then apply such remedies as are usually considered valuable. It is absolutely necessary to know what caused the shock, how it has acted on the nervous system, and above all whether the cause is still in operation. The number of remedies recommended is small, but the use of any particular one may be a matter calling for much exercise of judgment. Under drugs may be mentioned strychnin, caffein, adrenalin, nitro-glycerin, ammonia, cocain and morphin. Under mechanical appliances, heat, friction, hypodermoclysis, strapping of the abdomen. Above all, rest,—mental and physical—and removal of all possible sources of irritation which tend to increase or prolong shock. There is a temptation to do too much, and often remedies more or less antagonistic are employed at the same time.

There are three main types of shock, calling for variations in treatment,—shock pure and simple, shock with hemorrhage, and shock which is continued or aggravated by persistence of the shocking impulses.

Suppose we are called to a patient in a state of shock due to a fall which has shaken the whole system, but has broken no bones, and caused no gross internal lesion. The shock is profound; the mental condition is bad; the heart is weak, and the pulse thready. There is nothing acting to cause pain. There is nervous deluge, but no new impulses are starting from the periphery and trying to get into the flooded brain. This case is a simple one, although very likely a desperate one also. But the damage has already been done. The indication is clear to let the patient rally with as little interference as possible. The weakened brain should not be roused. All appear-

ance of excitement should be avoided. No effort should be made to arouse the patient. Let consciousness return at as late a period as possible. Stupor or partial unconsciousness acts as a bar to new impulses to further exhaust the nervous system. Strychnin or caffein may be given for the heart. Warmth and friction of the extremities are good. Whiskey should *not* be given, for reasons to be stated presently.

There is very little volume to the pulse. The blood has left the skeletal muscles, and retired within the huge reservoir of the visceral vessels. This condition might suggest hypodermoclysis. Try it, and you will doubtless find a temporarily better volume of pulse at the wrist. But if the heart is weak, and ready to give up the fight; if the muscular coats of the blood-vessels are so relaxed that most of the blood is in the abdomen, there is only a sort of spurious gain in adding a quart or two to the circulating fluid. The heart finds something to work on, and the pulse strengthens. But the heart is essentially weak, and the salt solution soon retires to join the blood, and the heart finds just that much more fluid in the abdomen, acting as a barrier to the activity of the circulation.

Again, suppose the patient, in falling, has received some injury which has caused a profuse hemorrhage. The blood, instead of fleeing to the recesses of the mesentery, is poured out on the ground. The heart has the same weak and flabby beat, the vaso-motor insufficiency exists as before, the mental condition is the same. Here hypodermoclysis is eminently called for. The heart has a double difficulty to contend with, and the exhaustion is greater. Hypodermoclysis, to be effective, must be ample, and direct stimulation of the heart should be generous, because, as has been pointed out, the hemorrhage makes the shock more profound. Direct stimulation should always precede hypodermoclysis. Do not make the weakened heart try to force more fluid through the vessels before it is adequately supported. If stimulation of the heart, and alleviation of the vaso-motor trouble cannot be effected, salt solution under the skin is of little more value than if poured on the outside.

Finally, let us suppose a case of crushing injury, with a mangled member still present. Hemorrhage may or may not complicate the case. The peculiarity here is the presence of a source of irritation which gives the system no chance to recoup. It is in such cases that drugs like whiskey and morphin (especially morphin), anesthetic drugs, are of service, and this may be true even if the patient is more or less unconscious, and does not complain, because the nerves are taking in sensations to the central nervous system, even if the patient

does not know it, and so aggravating the shock. If this were not so, then shock could never occur under full anesthesia.

Mention should be made at this point of a new use of an old drug, which may be of value in shock, viz., magnesium sulphate, by intra-spinal injection. (3) Without going into detail at this moment, it may be mentioned in passing that more or less complete anesthesia of the lower, and even of the upper extremities may be produced by this procedure, lasting for several hours. This procedure has been suggested for combating both tetanus and shock, and it is quite possible that a new and brilliant field is about to be opened up.

Doubtless much of the difference of opinion which exists as to the usefulness of alcohol and other anesthetic drugs in shock rests upon the fact that they have been used with satisfaction by one observer in cases of the third class, as above mentioned, and by another observer in cases of the first or second class without benefit. The same controversy has been waged with reference to immediate operation in bad cases. There is no question that life is often saved by prompt operation, even in bad cases, providing the result is the removal of a source of irritation which keeps the patient from rallying. At the same time, the operation itself, of course, often super-imposes another form of shock, although this may be prevented sometimes, by means presently to be mentioned. Such an experience as the following has only too often been met with: a patient will be brought to the hospital suffering from some mangling injury, with profound shock. The case is a desperate one, but immediate operation is considered necessary. It is unnecessary to say that ether, and not chloroform should be used, as the latter always tends to lower blood-pressure. Narcosis is easily established, and the operation is begun. The anesthetist reports that the pulse is growing stronger. Finally it becomes necessary to sever some large nerve, as the sciatic, in a thigh amputation. The pulse becomes weaker again, and does not respond to stimulation. The operation is hurriedly finished, and the patient is put to bed. He never rallies, and dies of the shock, which was diminished by the anesthetic, and increased again by section of the sciatic.

And this brings me to a point which seems of great theoretical, and I hope practical importance, viz., the possibility of preventing or relieving shock by the use of cocain. Those who heard the paper read by Dr. Harvey Cushing before this body a few years ago, could not fail to be impressed with the value of cocain, and the great field which its use opens up. He reported operations, such as the total ablation of the shoulder-girdle, not only without pain, but without the

patient being aware of what was going on, his head being covered up, and he being under the impression that a tedious dressing was being done, and that the operation was to be the next day. He left the operating room on his own feet, absolutely devoid of shock, which, as is well known, is very severe when the brachial plexus is severed, even under complete ether narcosis. Each nerve, as it was reached, in a careful and skillful dissection, was cocainized, and thereby every particle of sensation was abolished, and when the nerve was cut no impulse whatever was carried to the brain. There was no nervous deluge,—not even a mild freshet. Shock was as impossible as if a severed limb was being operated on.

Now, if this is true, many cases of shock from mangling injuries, and even from limited burns, could be greatly lessened by the proper use of cocain. Many cases are not so very serious in themselves, but the continued irritation keeps hammering away at the central nervous system until a sort of cumulative shock, of great severity, is brought about. For instance, suppose a man gets his leg in a separator out in the country. Amputation will be necessary, but it is thought best to take the man to the hospital. It would not be difficult to isolate the sciatic, and cocainize it sufficiently to prevent all impulses from the mangled member being sent to the brain to increase the already existing shock. And when the man comes to the operating table, whether this procedure has been carried out or not, the old-fashioned cut sweeping out across the muscles need not be made, but the principal nerves could be isolated and cocainized, and then cut lower down, without adding to the shock. Every one who has amputated in the thigh must have observed the shock which section of the sciatic causes. No more life-saving procedure than this, if successfully carried out, could well be devised, and its application can be greatly extended, so as to include many operations involving large nerves, whether a general anesthetic is given or not.

To recapitulate,—shock is nervous deluge. Shock is not hemorrhage. It is not caused by hemorrhage, but a small dose of shock acts violently in the presence of hemorrhage. The essential features of shock are profound prostration of the whole body, due to the inability of the deluged nervous system to keep its house in order, and fall of blood-pressure, which allows the blood to accumulate in the abdominal viscera, and puts the cardiac pump out of commission, the case being aggravated by inspissation of the blood. Shock is treated by stimulating remedies in pure shock. There should be added in cases of hemorrhage hypodermocylsis, and in cases which have pain,

or continued nervous or shocking sensations, anesthetic remedies, such as morphin, alcohol and cocain, and the greatest of these is cocain.

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THE RELATION OF BLOOD PRESSURE TO SURGERY.*

BY A. H. LEVINGS, M. D.

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There has been a great deal of work done during the past few years at the bedside and in the laboratory, both by the physician and surgeon, touching the subject of blood pressure, and while commendable progress has been made, the subject in a general way, and especially the prevention and treatment of lowered blood pressure following operations and accidents, is only in its infancy.

The following paper is based largely upon readings of the sphygmomanometer in 120 cases. The majority of these were operative cases and the operations covered almost the entire field of surgery and were mostly major in character.

Before taking up the results of these observations, I wish to consider briefly the mechanism of blood pressure. For the proper circulation of the blood, a condition which is essential to the functions and health of the individual, a certain degree of blood pressure must be maintained. If this fall to any considerable degree the capillary lake and venous system are flushed, the pulse becomes weak and thready, the arterial system is depleted, the venous system congested and the functions of the body disturbed or even arrested. The blood pressure is maintained in part by the vaso-motor system of nerves whose center is in the gray matter of the floor of the fourth ventricle. There are also certain subsidiary centers in the spinal cord. In

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health these nerves acting upon the muscular tissue in the walls of the blood vessels, and especially upon that in the arterioles, maintain a constant tonic contraction, in consequence of which the heart is able to maintain the blood pressure throughout the general arterial system at a certain definite standard.

A stimulus imparted to the vaso-motor system, either directly through the splanchnic area or indirectly through a sensory nerve, increases the action of the vaso-motor system, the contraction of the peripheral arterioles, and augments the blood pressure.

If this stimulus is continued for an indefinite period or is excessive in character, then and in that case the vaso-motor system becomes exhausted, the peripheral system of arterioles dilate and the blood pressure is lowered.

In health there are three factors which are responsible for the maintenance of the normal blood pressure. One of these is the forceful rhythmic action of the heart, another a suitable quantity of blood in the vascular system, and a third, a proper tonic contraction of the peripheral arterioles. If either of these conditions is disturbed, the blood pressure will be affected. A diminution in the force and an increased frequency of the heart's action, a lessening in the amount of circulating fluid within the vessels, or a dilatation of the arterioles, each and all will lessen the blood pressure.

The mechanism of the lessening of the blood pressure in surgical practice is as follows:

An injury to a peripheral sensitive nerve, if mild in degree, acts as a stimulus which is conveyed to the brain and transmitted reflexly to the bulb in the floor of the fourth ventricle, the center for the vaso-motor nerves. Acting upon this center, this impulse is transmitted through the vaso-motor system, producing contraction of the arterioles and consequently increasing the blood pressure.

After opening the abdomen, slight handling of the intestines or stomach causes, in consequence of the stimulus being applied directly to the splanchnic area, a rise in the blood pressure. If the stimulus be excessive or often repeated, the vaso-motor system becomes partially or totally exhausted, the peripheral arterioles dilate and a marked lessening in blood pressure occurs. That a severe traumatism, whether it be peripheral, intra-abdominal, intra-thoracic or intracranial, exhausts or paralyzes the vaso-motor system, is well established by experimental research. By the use of the Riva-Rocci sphygmomanometer, the lessening of blood pressure is capable of demonstration following long continued operations and severe injuries. This is due in operations and injuries without the loss of any

considerable amount of blood, to the exhaustion of the vaso-motor system, the dilatation of the peripheral arterioles, and the loss of tone in the heart's muscular contractions. In cases in which there has been hemorrhage, it is also due to a diminution in the volume of blood in the vascular system. We may well inquire, if in these conditions there is not something more than a weakened heart's action, a lessening of the peripheral resistance by the dilatation of the arterioles and consequently a lessening of the blood pressure. In many cases of severe injury, there is a decided lessening or weakening of the mental phenomena. The intellect is inactive, the emotions are suppressed and volition is at a standstill. There is also a muscular powerlessness. The patient is unable not only to exert his mind, but his muscles have also gone out of action. In some cases of prolonged operation or severe injury, there has been such a stimulation of the nerves as to practically put out of action the mental faculties, the motor, sensory and sympathetic system of nerves. It seems to me that this condition is scarcely due in its entirety to the loss of blood pressure, but that the same traumatism which over-stimulated the vaso-motor nerves and produced their paralysis has over-stimulated the cortex of the brain, suspending in a large measure the action of the intellect, the force of the will and the function of the nerves.

There are also a number of conditions aside from operations and injuries which affect the blood pressure and which must be taken into consideration in order that we may intelligently study this subject.

All enfeebling diseases such as the infectious fevers, and perhaps especially tubercular infection, tend to lower blood pressure. Worry, privation, and the absence of proper and sufficient food, diseased conditions of the heart's structure such as myocarditis, acute mania and a failure of the vital forces, all tend to lower blood pressure. Aside from this, there is a secondary low arterial tension, which represents the final outcome of a pre-existing high tension. The blood pressure may also be raised to an abnormal and perhaps dangerous degree in consequence of nervous excitement, over-exertion, excessive ingestion of food, mental hardship with physical luxury, melancholia, hypertrophy of the heart, arterio-sclerosis, increased intra-cranial pressure or diseased conditions of the kidneys, especially acute and chronic interstitial nephritis.

The effects of the anesthetic and operation upon blood pressure have been studied in the above 120 cases, taking sphygmomanometric readings before and after the operations and after the administration of certain remedies. In 20 out of the 120 cases there was an average rise of blood pressure, after the operation, of 14 m.m. The greatest

rise in these 20 cases was 35 m.m. In 8 cases the pressure remained practically the same. In 82 of the 120 cases, there was an average fall of the blood pressure of 15.8 m.m. The greatest fall was 55 m.m. In all of these 110 cases, 1/30 of a grain of strychnine and ¼ of a grain of morphine were given before the anesthetic. In ten cases nothing was given before the anesthetic, and in these there was an average fall of blood pressure of 24.3 m.m. In the latter cases, the fall of blood pressure exceeded the former by 8.5 m.m. In one of these patients the pulse practically disappeared at the wrist. Although these cases are too few to base any positive conclusions upon, they at least are very suggestive that morphine and strychnine given before an operation are helpful in warding off an excessive lowering of blood pressure. The average increase in the pulse rate following the operations was 28 beats per minute.

PROPHYLACTIC TREATMENT:—In order to prevent an unusual lowering of the blood pressure during or following an operation, one should place his patient in the best possible condition, both mental and physical. It has been my practice for years to give the patient, just before administering the anesthetic, 1/30 of a grain of strychnine and ⅛ of a grain of morphine hypodermically. Both of these remedies assist in supporting the heart's action, while the latter may lessen to some degree the amount of anesthetic required and the effect of the traumatic and harmful influences going to the vaso-motor system of nerves. In consequence of the increase in the pulse rate of 28 beats per minute, I think it is advisable to add 1/50 of a grain of digitaline to the strychnine and morphine before the anesthetic.

In the choice of the anesthetic, other things being equal, ether is to be preferred, as it depresses the circulation much less than does chloroform. In the prevention of the lessening of blood pressure, it is of the greatest importance to limit the loss of blood to the least possible amount, as the blood pressure depends as much upon the amount of blood in the vessels as it does upon the contraction of the peripheral arterioles or the action of the heart. The loss of only a small amount of blood will very materially lessen the blood pressure. It is also essential to limit the amount of the anesthetic used, to avoid exposure of the patient, and to do the operation as quickly as is compatible with the performance of good surgical work.

TREATMENT OF LOWERED BLOOD PRESSURE:—It has been my experience with lowered blood pressure following an operation, that strychnine administered hypodermically more quickly and effectually raises the blood pressure than any other single remedy. With the blood pressure ranging from 110 to 120 m.m. and the condition not due to

the loss of blood, 1/20 or 1/30 of a grain of strychnine injected hypodermically will in the course of a few minutes, in the great majority of cases, raise the blood pressure from 20 to 30 m.m. If this rise is once secured, it is ordinarily readily maintained. If there is much pain or nervousness, morphine should be combined with the strychnine. If there is a rapid pulse with lowered blood pressure, digitaline should be given in doses of 1/20 to 1/30 of a grain. Caffeine, carbonate of ammonia, and camphor are also very serviceable. Adrenalin chloride is often very serviceable in cases of lowered blood pressure. From 20 to 30 drops of a 1 to 1000 solution may be given hypodermically.

In one of my cases in which the blood pressure was 120 m.m. one hour after the administration of four grains of the dessicated supra-renal gland, the pressure had risen to 140 m.m. In two hours after the administration of six additional grains, it had risen to 160 m.m.

It should be born in mind that the lowest blood pressure which is compatible with life is often beneficial to the patient. This is especially true in cases of present or threatened hemorrhage. A high blood pressure may also act very unfavorably upon the heart. In a case of anuria due to acute ether nephritis and in which there was marked arterio-sclerosis, the blood pressure ran up in a few hours to nearly 300 m.m. and before it could be gotten under control resulted in marked dilatation of the heart and edema of the lungs. In the loss of blood pressure due to hemorrhage, hypodermoclysis is most serviceable. In extreme cases a pint or quart of the normal salt solution may be thrown directly into a vein. In these cases it is also well to bandage the limbs and abdomen and to elevate the foot of the bed.

DISCUSSION ON PAPERS OF DRS. REEVE AND LEVINGS.

DR. J. R. BARNETT of Neenah:—When Dr. Reeve invited me to participate in the discussion of his paper, I accepted with a promptness which no doubt surprised him and may have thrown him into a condition of shock he has so well described. He may have taken it as a very prompt service of friendship. I am glad to have him take that view of it. I accepted promptly as a matter of fact because I realized that he would leave me but little to do. Now having previously heard the paper my feeling of satisfaction has changed to consternation, because he has covered the ground so completely that it leaves almost no room for discussion. I am glad to see that he was inclined to differentiate between nervous shock and the depression of hemorrhage. His expression "nervous deluge" pleased me exceedingly.

It seems to me that we could simplify the nosology of this condition somewhat by limiting the term 'shock' to that which is due wholly to nervous causes, perhaps modified incidentally by hemorrhage, and that when the hemorrhage is severe enough to be the cause of sudden death, we should call it acute anemia or hemorrhage, and not invoke the spell of the awful name of shock to cover a possible fatal neglect of our own.

The writer spoke of there being no pathological changes occurring in the quality of the blood, at the same time specifying a loss of fluidity. I should take that to be a pathological change. There might be other changes corresponding to that, through the wreck of the nervous system, such as changes in the secretions of the internal glands, or changes governing cytolysis, and perhaps even the production of those bodies which guard in many ways the diffusive processes against infection. This would apply particularly in so-called continued or recurrent shock. We are at the outer door of investigation in these matters. We can understand with reference to the internal gland secretion that its sudden suppression might produce radical effects, such as this intravenous bleeding to death that the writer mentions.

If the system is suddenly shut off from its normal secretion of the suprarenal gland, exercising the important function that it does in determining the caliber of blood vessels, it is worth considering, to say nothing of these other processes which are certainly very vague to me; and I think that Dr. Levings might have included that in the effect upon the blood vessels, as well as the innervation of the vasomotor system. We do not yet know how much is determined by either.

With regard to the treatment of shock, by hypodermoclysis. In the first place it seems to me that that should be used with discrimination. The doctor did not make any limitation as to the time of using it. If hemorrhage is going on, if we have not control of the bleeding vessel, it is no time to use hypodermoclysis—one ought not to wash out the blood remaining in the vessels but we should control the hemorrhage and then use hypodermoclysis.

With regard to storing blood, between Dr. Levings and Dr. Reeve the ground has been cut from under me; only I believe that if shock is threatened, if there is danger of vital depression from the loss of blood, or even from nervous causes of shock, it is well to have a reserve on hand, and I think a system has been specified by Dawbson which is very workable, that is—to cord an extremity and store up an amount of blood there before the anesthetic is employed, so that it shall be ether-free; and as that blood is needed it can be released; that is a great boon to a system that is famishing for blood of a pure quality, not influenced by the anesthetic. If it seems that you are going to need more than you have stored in one extremity, before you have released that you can begin storing in another extremity, so that you have still another supply of blood to throw into the general circulation, although not of as good quality, as at first.

It seems to me, with regard to the use of medicine, that pretty much all has been said that can be said on that subject. Theoretically the adrenal chloride would be of most admirable service. While it might not restore to the circulation what has been held in the abdominal veins, it might make a great deal of difference in any further losses of that sort by giving tone to the arterioles and to the heart, and so sustain the patient until the venous stasis is quietly and spontaneously relieved.

DR. RALPH ELMERGREEN of Milwaukee:—I regret very much that I was unavoidably absent during the reading of this valuable paper. The subject under consideration is always interesting to the general practitioner as well as to the surgeon. This discussion is particularly interesting to me at this time because I saw two severe cases of shock during the last week. From the tenor of the discussion I unfortunately must gather that there is still a great deal of confusion in the minds of many in the application of the term shock. To me it appears that the term shock is used in altogether too wide and generic a sense—covering every pathological phase from hemorrhage to conditions that supervene on injuries to head or spine.

I believe that the application of the term shock should have well-defined limitations. Just so long as we remain hazy in our definition and differential pathology of shock, we can not possibly agree on the proper treatment. It is because we are prone to discuss wholly different conditions under the term shock that we fail to agree on the utility of well recognized remedial agents. We hear strychnine and normal salt infusion praised and condemned to-day just as we did two years ago before this society, simply because we confound terms and conditions.

Shock is not due to hemorrhage or pain; nor is shock caused by anemia of the brain. I would not call the conditions that supervene on a marked injury to head or spine, shock. Syncope is not shock. The collapse following upon the sudden evacuation of large cavities in the thorax or the abdomen, is not shock. We must eliminate all these conditions before we make our diagnosis of shock. To my mind the lesions of shock lie wholly in the medulla, brought on perhaps by an exhaustive series of overpowering peripheral impressions. The phenomena of shock are strangely analogous to what we call polarization in electricity and crystallization in steel. Once we fully understand the pathology of shock, the treatment will take care of itself.

DR. WILLIAM E. GROUND of Superior:—We must have a clear understanding as to what we mean by shock. Conditions of hemorrhage and collapse should not be classed with shock, and the treatment is in many respects dissimilar. In hemorrhage there is progressive increase in the rapidity and weakness of the heart's action due in a certain sense to the lack of material for the heart to act upon, and not to a derangement primarily of the cardio-vascular center. In shock we have a rapid weak heart with lowered blood pressure due to the exhaustion, more or less complete, of the cardio-inhibitory and the vaso-constrictor centers, caused by repeated impressions sent to them by the afferent nerves. Physiologists such as Howell and Porter, and in the class of practical surgeons, Crile, Cushing and Halsted, have demonstrated the truth of these assertions by repeated experimentation. In the treatment of shock the administration of stimulants such as alcohol, strychnia etc., are clearly contraindicated because they tend all the more rapidly to complete the loss of activity of these nerve centers, thus hastening the end. If there is enough nervous irritability left for these stimulants to successfully act upon, they are superfluous if not positively injurious. The administration of morphine before operations is not without reason in fact, and nerve "blocking", as you are well aware, has been practically applied. Along this line Bier, of Bonn, has caused to be made some experiments tending to show that spinal anesthesia will effectually prevent shock, by diminishing the

severity of the afferent impressions sent to the centers. He demonstrated that dogs in which lumbar anesthesia had not been performed, when shot with shot, fell and failed to arise after the immediate impact of the ball; whereas those dogs in which complete lumbar anesthesia had been done did not suffer from the immediate effects of the shot and showed no symptoms until hemorrhage intervened.

The most effective treatment of shock may be considered under two heads: preventative and curative. There are conditions well known to operating surgeons that greatly predispose to shock. It may be the inherent individual predisposition of the patient or the particular quality of the diseased condition; the room should be neither too hot nor too cold, and the ventilation is an important factor. Prolonged operations and the rough handling of sensitive parts should be particularly avoided. In the abdominal cavity the manipulation of the viscera by pulling upon their attachments, by wiping the serous surfaces with dry and cold gauze, as is often done, increases the afferent impulses sent to the centers and hastens the exhaustion of their function. The foot of the bed should be elevated and external heat should be applied. Confusion and the presence of friends and relatives about the room should be interdicted. In severe cases bandaging the limbs is indicated as it favors the flow of blood to the heart and brain. The clinical manifestations of shock and hemorrhage are very similar, so too their terminal stage, inasmuch as the blood in shock is not in the circulation, but remains stagnant in the large venous channels of the abdominal cavity. The use of stimulants we have already touched upon. The administration of intra-venous saline solutions has been highly recommended, but in the absence of aggravated hemorrhage is of doubtful utility. Even here its scope is very much restricted, as a little excess soon transudes from the blood vessels and loads the gastro-intestinal canal, lungs, and other organs, thus menacing life. The use of adrenalin is probably open to the same objection as other stimulants i. e. it adds nothing to the vital forces. Crile's latest suggestion is to make an anastomosis between an artery of another person—say the radial—and a vein of the patient, the proximal end of the basilic. In this direct transference of blood it is necessary to have the animals of the same species.

DR. F. SHIMONEK of Milwaukee:—I wish to commend both of these admirable papers on Blood Pressure and Shock. They both cover the field so thoroughly that there is but little remaining to say. I have here the conclusion of the committee on research of the division of surgery of the Harvard Medical School, published in the Boston Medical and Surgical Journal for March 10, 1904, which is interesting in this connection. It reads:

"The commitee has carefully investigated the value of the blood-pressure observations in surgical cases. The conclusions of the committee are as follows: The value of the Riva-Rocci apparatus in determining the blood-pressure in surgical patients is limited to a comparatively small number of cases. The conditions of cerebral compression and of surgical shock produce the most marked and definite alterations in the blood-pressure. When these conditions are present and other confusing causes of alteration in the blood-pressure are eliminated, the value of the blood-pressure determinations as an indication for or against operation is increased. Under other circumstances the value of these observations is at present not apparent. The

adoption of blood-pressure observations in surgical patients does not at present appear to be necessary as a routine measure."

Those are the conclusions of a very long and searching observation made by the committee. I have had no experience with this apparatus so I cannot speak of it from practical observation.

The uselessness, or perhaps worse than uselessness, of strychnin in shock, has been touched upon by Dr. Ground. When I speak of shock I mean of course lowered blood-pressure. Those two things go hand in hand. You can not have shock without lowered blood-pressure, although there may be lowered blood-pressure without appreciable shock. The shock depends upon the degree of the lowering of the blood-pressure. As it has been stated here by all the speakers, lowered blood-pressure or shock is due to exhaustion of the center of the vaso-motor mechanism. It is brought about, according to the experiments of Crile and others, by the increase of stimulation and finally exhaustion of this part of the apparatus. Crile says it makes no difference whether the stimulation is applied externally or internally. He means by that that it makes no difference whether it is the injury which produces this exhaustion, or whether stimulation by strychnin internally produces it. He says the effect is the same. I believe, therefore, if these observations are correct, and they seem to be, that the use of strychnin under any circumstances in this condition is improper. It would seem proper to draw your attention to a condition which appears at times to be mistaken for surgical shock. I refer to collapse. I believe that the difference in the opinions of the value of strychnin and other stimulants in post-operative exhaustion, depends largely on the fact that collapse yields more readily to stimulation because the circulation is primarily at fault, and not the vaso-motor center, as is the fact in true shock.

It is rather difficult to differentiate between these conditions. Shock is much more serious and very much more difficult to handle than collapse. I believe that the administration of strychnin previous to operation is as useless or harmful in large doses as when administered after the operation, for, if it is true that it adds to the exhaustion of the vaso-motor center, it does not make any difference when it is given.

Crile has found that adrenalin increases the blood-pressure after cutting out entirely the vaso-motor center in the medulla by cocainization.

To show that adrenalin has a direct effect upon the blood-pressure he has cut off the heads of animals and kept up blood-pressure by it. He has also resuscitated animals which had been dead for several minutes, by the use of this drug. I think therefore from these observations that this drug is the one to use in shock or in lowered blood-pressure. Because its effect is very fleeting it has to be used almost continually, until blood-pressure rises, with due caution however.

So far as the injection of normal salt solution is concerned, I believe it should find no place in the treatment of shock, unless there has been loss of blood.

I believe also that unless the kidneys are thoroughly capable of removing the salt solution from the body, it should not be used, because the tendency of the normal salt solution is to dry up the splanchnic area through paralysis of the diaphragm, and death might result from paralysis of the respiratory tract.

DR. W. G. DOERN of Milwaukee:—What I wish to say refers especially to those cases which permit the proper preparatory treatment before operation. In considering "shock" from this point of view we must keep two things in mind: first, the receptivity of the nerve centers, and second, the condition of the circulatory system, i. e. the stage of blood pressure. It is a well established fact that patients depressed to a certain limit by disease or by confinement, stand operations far better than does the strong, vigorous workingman. In guarding against "shock" we should aim first, in a measure, to reduce the reflex irritability of the nerve centers, and, secondly, to maintain the normal blood-pressure. In our routine work, as far is it is possible to apply a routine method to all patients, in addition to the usual laxative and dietetic preparation, we administer from 8 to 15 gr. of chloretone one hour before the anesthetic, and 1-12 gr. heroin with 1-100 gr. digitalin (for adults) 15 or 20 minutes before starting the anesthetic. The heroin relaxes the respiratory apparatus making respiration free and easy; chloretone greatly enhances the effect of chloroform requiring much less of the anesthetic, while both the heroin and the chloretone reduce the reflex irritability of the nerve centers, without abolishing the reflexes completely, thus avoiding or preventing the shocking impression the operation and anesthetic might otherwise make on the patient. We pay no particular attention to blood-pressure if it is high, with the above preparation and chloroform as the anesthetic, but if it is low adrenalin is administered in 10 drop doses repeated until the pressure is raised. In regard to the treatment after shock has occurred, strychnin and more especially nitroglycerin should be ruled out entirely. It is true the blood-pressure may be raised by the use of strychnin, but not without stimulating the "shock-exhausted" nerve centers. If there is any stimulation from the strychnin, whatever, it is simply whipping the already exhausted nerve cells into activity, which causes further exhaustion. In other words, it continues the cellular activity which nature is attempting to suspend in order to save the centers from complete destruction. The blood pressure is reduced; large vessels, especially veins, are dilated and contain the pressure volume of blood. Nitro-glycerin further relaxes the smaller arterioles and reduces blood-pressure still more.

The bandage is the most efficient means for removing the blood from the veins in which it has accumulated, increasing the blood-pressure where it is most needed. Mention was made of the pneumatic suit and of Willy Meyer's method of bandaging limbs to express the blood to more important regions, but no reference was made to the abdominal binder. In any case of shock and after all abdominal operations, the abdominal binder should be firmly applied. If you go through the various hospitals you will find that the tendency is to apply loose abdominal binders after laparotomies notwithstanding the fact that we all agree that the abdominal vessels are usually dilated if there is the least tendency to shock. The firm application of the abdominal binder will be more efficient, by applying external pressure to the dilated and overfilled abdominal vessels, than any other method of vessel compression. Adrenalin will replace strychnin and nitroglycerin.

As for injection of salt solution, the venous system is usually filled, the arterial system is depleted. Injection per rectum, by hypodermoclysis or directly into the vein, means injection into the venous system from which it must reach the arterial system where it is wanted. In an urgent case it is

useless to inject into the venous system. In case of heart failure inject directly into the artery and toward the heart. It has been demonstrated that it is only necessary to restore the blood-pressure in the heart and in the coronary arteries, to stimulate the heart to activity. Filling the vein still more accomplishes that end only indirectly, but filling the artery, especially the coronary arteries, where the volume is reduced, will stimulate the heart more quickly than any other injection.

DR. JAMES S. REEVE:—I am sorry to see strychnin getting a black eye; and I think we should discriminate in its use; it may do good and it may do harm although I have yet to see the harm, but it should never be set down as being a bad drug for shock in all instances. If your patient is suffering from exhaustion due to overstimulation and is likely to die it may be possible theoretically to kill him more quickly with strychnin; but if he has rallying powers it is extremely useful. Personally I prefer caffein especially in prolonged shock, to strychnin, because it helps elimination through the kidneys. But I believe strychnin is valuable, and I use it freely, and I believe that notwithstanding theoretical conclusions from animal experimentation, the clinical observations are overwhelmingly in favor of the judicious use of strychnin. Find out what the condition of the patient is; if he is going down from overstimulation in general, of course you do not then use stimulating remedies; but if he has a little rallying power then you can help him out with strychnin among other things.

DR. A. H. LEVINGS, of Milwaukee:—Along the same line that Dr. Reeve has spoken, the gentleman to my left spoke very positively about the use of strychnin. Of course I do not know how much experience he has had in the use of strychnin in shock, but I know I have been using strychnin in shock for the last 20 or 25 years. I am quite opposed to the ground which Dr. Crile and Dr. Ground have taken, that dogs die more readily in shock when strychnin is administered than otherwise. Now, I spent nearly all my time one summer in experimenting with a sphygmomanometer upon shock in dogs, introducing the tube of the instrument directly into the femoral artery, taking the blood-pressure, reducing the dog to an extreme degree of shock through various operations, and then administering strychnin, caffein, adrenalin, camphor, or any of these stimulants, and my dogs always rallied under heavy doses of strychnin. Of course we may have different kinds of dogs here in Milwaukee from what they have in other places; but the dogs in Milwaukee and the human beings in Milwaukee, when in a profound state of shock, rally under the effects of strychnin if it is given in sufficiently strong doses. I have often given ¼ of a grain of strychnin in divided doses of 1-15 or 1-20 or 1-30 gr., every 15 minutes. I had a very illustrative case yesterday. If what has been said here to-day is correct, this patient should be on his way to the cemetery. I was doing a nephrectomy in a case in which there were very firm adhesions. The patient's blood-pressure before operation was 185; when the operation was finished his blood-pressure was 65 and the pulse scarcely perceptible, and still a 20th of a grain of strychnin in 15 minutes brought that blood-pressure up to 130 and did not kill him or send him to the cemetery. I think if you gentlemen will carefully note the effect of strychnin in this class of cases you will find that it does not exhaust the nervous system as has been claimed by

Crile, that it does not overstimulate an already over-stimulated nervous system, but that it acts as a tonic upon an exhausted nervous system, and that is really what shock is, an exhausted state of the nervous system; and the strychnin supports it.

In regard to the cocainization of nerves, mentioned by Dr. Reeve, I experimented a good deal with this method of avoiding shock or effects of nerve injury in cases of operation, upon a dog, making repeated sections of the sciatic nerve both after and before cocainization. Now with us the division of the nerve, or the cocainizing of a nerve, produces a certain degree of stimulation, and produces a rise of blood-pressure, invariably, unless the patient, or the dog, is in a state of collapse. If you cocainize a nerve it will increase blood-pressure as much as it will if you divide it; and in my experiments (and I practised them until I myself was perfectly satisfied) there was no benefit from cocainizing the nerve. Cocainizing and handling the nerve produces harmful impulses upon the vaso-motor system of nerves and you get shock as the result of cocainizing and handling a section.

I think one should always bear in mind that, as stated by Dr. Shimonek, shock and hemorrhage are entirely separate and absolutely distinct; that while hemorrhage aggravates and will always aggravate shock, the patient may die of shock and not lose a drop of blood; and on the other hand a patient may bleed to death and not suffer in the slightest degree from shock. For instance, a man may have a kick on the abdomen, and die almost instantly of shock and not lose a drop of blood; or he may receive a blow on the jaw and die almost instantly of shock without losing a drop of blood. On the other hand you may cut an important vessel and the patient will bleed to death in two minutes and not suffer at all from shock. While hemorrhage aggravates shock, the two conditions are and should be treated entirely separate.

DR. J. L. CLEARY of Kenosha:—I would like to ask Dr. Levings how he can account for the difference in the action of nerves down at Johns Hopkins University, as shown in experiments conducted by men who claim to know something about conducting physiological experiments with drugs, and the different action of nerves in Milwaukee as shown by the doctor's own experiments.

DR. A. H. LEVINGS:—So far as I am aware our investigations do not disagree. These blood-pressure readings that I have taken, I might say have been taken under my direction by the hospital internes, by the hospital surgeon and hospital physician, and have not been under my personal control. I have merely requested that they take the readings and mark them down; so that there could have been no doctoring of reports.

DR. CLEARY:—That is not the point of my question. The point that I wanted to settle is why it was that your report of these experiments with cocaine was different from that given before this society by Dr. Cushing some years ago in the use of cocaine in blocking nerves, as he called it. He claimed that it prevented shock, and you claim it makes no difference. I simply ask the question how you can account for this difference; in other words, how do you account for authorities disagreeing?

DR. LEVINGS:—You did not specify in what way my results differ from those of Dr. Cushing. I am well aware that Dr. Cushing and Dr. Crile have

both affirmed that the cocainization of a nerve blocks sensory impulses and prevents shock. The point I desire to make is simply this, that the cocainization of a nerve produces as much traumatism of that nerve and results in as much stimulation of the nerve center, as does the section of the nerve.

DR. NOLTE:—How do you explain that this is no contradiction of Dr. Cushing's assertion?

PRESIDENT:—I understand that Dr. Levings has given us this as his own personal experience and as the result of his own experiments, and as the time for discussion is up we will have to proceed.

SUBMUCOUS RESECTION OF THE NASAL SEPTUM.*

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The importance of septal deformities is to-day appreciated by nearly all rhinologists, and every year an increasing amount of attention is given to the septum in the treatment of chronic nasal catarrh, even where obstruction may not be the central feature. By the vast majority of the general practitioners, however, it must be admitted that very little significance has been attributed to these extremely common irregularities of the septum. This is true largely because these spurs, ridges and deflections are not easily seen by one unused to the head mirror, and he easily attributes to a general disease what may frequently be caused by mechanical irritation or obstruction. It is a very easy matter to see the exquisite irritation caused by the growth of a toenail into the tender flesh, and the mechanical treatment is at once suggested. But, without careful examination, one does not see that the sharp edge of a septal ridge is pressed deeply into the turbinate every time there is the normal turgescence of this organ, and perhaps he makes light of the suggestion of surgical relief.

In general it may be said that, in a perfect nose, the membranes of turbinate and septum should not touch, Figure I, and that when they not only do touch, but are firmly pressed together during a great part of the time, there must be a very decided irritation of the parts, with consequent catarrhal discharge, more or less marked obstruction and perhaps, asthmatic or other nervous symptoms.

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One who has experienced the irritation from some foreign body in the nose has had an object lesson, somewhat magnified probably by septic invasion, of what is actually going on, all unsuspected, from the presence of some abnormality of septum or turbinate.

While overgrowths of the turbinate tissues very commonly lead to the milder forms of catarrh, it has been the experience of the writer that the overwhelming majority of the more stubborn cases of chronic nasal or post nasal catarrh have been complicated at least by some septal deformity, and have yielded only after its removal.

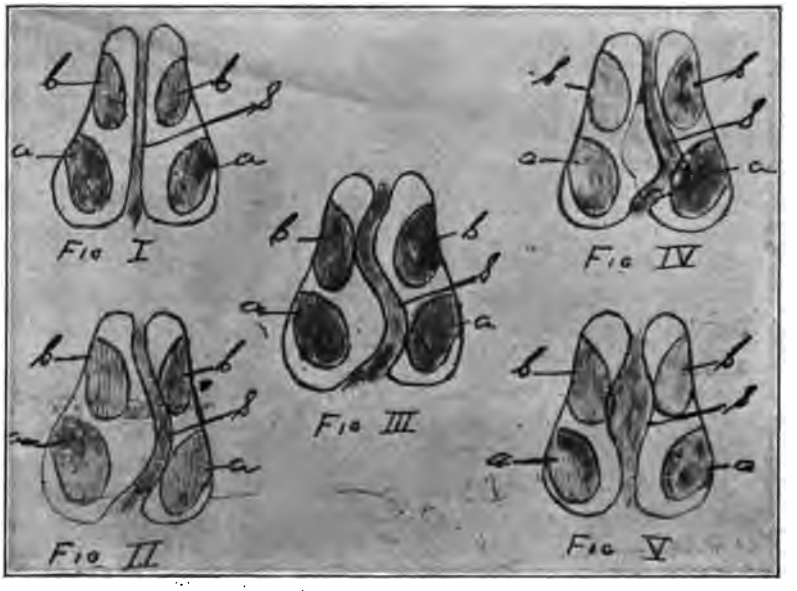
There is a fascinating subject of investigation along this line, but a further study of it must be left to a subsequent paper. The object of this article is to call attention to the best treatment of these irregularities.

Septal deformities may be roughly divided into two classes: first, deviations, which may be either the smooth bendings of the septum to one side or other, the familiar deflections, or irregular angular deformities. Second, thickenings, under which head we should place the uncommon neoplasms.

There has been much discussion as to the cause of the deviations of the septum. They have been attributed principally to accident or to various developmental irregularities. The writer is inclined to consider them due to traumatism which may have been received at any time from the passage of the parturient canal to the latest foot-ball accident or political discussion. To prove or disprove this theory would require an enormous amount of research regarding the shape of the septum in the unborn child. The thickenings are due, for the most part, to constant irritation from the current of the inspired air with its dust and bacteria. They form most commonly where this current strikes most powerfully below and anterior to the end of the middle turbinated bone, Fig. V, or on convexities of bends or angular deformities, Fig IV. This last is the great cause of the common spurs. Such a thing as a sharp shelf of bone growing out from a perfectly straight septum, formerly considered common, is, in my opinion, one of the very rarest of nasal abnormalities.

The deflections of the septum may be either simple,—bent only to one side, Fig. II, or compound,—bent to one side at one place and to the other at another, Fig. III. The commonest seems to be a pronounced bend to one side in front and below with a less pronounced bend further back and higher. The angular deformities, Fig. IV, also usually run from below upward and backward along the line of the junction of the vomer with the quadrangular cartilage, and the perpendicular plate of the ethmoid, but there may be any variety until the septum resembles a miniature range of mountains.

Figures I to V show schematic views of septum and turbinates as seen through the nasal speculum, approximately as they would appear to one looking into the nasal cavities if the anterior soft parts were removed. Fig. I represents a vertical cross section at the tip of the middle turbinates, *a* represents the inferior turbinate, *b* the middle, and *s* the septum, which is here in its natural vertical position. Fig. II represents the same with the septum bent in a broad



Schematic drawings, showing relation of septum and turbinates as seen from in front. Vertical sections a b plane of anterior end of middle turbinate. "S" septum, "a" inferior turbinate, "b" middle turbinate. Fig. I, normal septum. Fig. II, deflection of left, simple. Fig. III, compound deflection to right above and left below. Fig. IV, deflection to left below with spur and to right further back. Fig. V, thickening of septum opposite middle turbinates.

simple deflection to the left. Fig. III a compound deflection to the left below and the right above. Fig. IV shows an angular deflection to the left below, with a thickening or spur pressing into the inferior turbinate, and a deflection to the right further back. Fig. V shows a common thickening of anterior septum just at lower level of middle turbinates. The unshaded portions of these cuts show the breathing room.

The almost universally employed treatment of these deformities a few years ago—and one still commonly used—consisted in cutting the septum through in various directions according to the shape of the bend and then fracturing the bone or cartilage to destroy its

resiliency, holding it in its new place for a few weeks with splints or tubes till it grew into its proper position—the "Asch operation"—or simple extensive fracturing without preliminary incisions and with subsequent retention as in the "Roe operation." The spurs were sawed off, membrane and all, and then allowed to heal over in a few weeks (or months).

These operations were exceedingly disappointing. In the first place, even after the most careful fracturing, the septum very often slowly regained its old position. The overlapping parts of the "Asch" or the crushed fragments from the "Roe" operation led to thickenings which often caused as much obstruction as the first deformity. Occasionally, also, the fracture extended up to and involved the cribriform plate, bringing on more or less severe meningitis or at least interference with the sense of smell. But worst of all, from the patient's standpoint, was the pain and discomfort of wearing tubes or splints for four or five weeks. As regards the spurs, if an operator sawed close enough to get complete relief from the obstruction, he ran great chances of making a perforation. If he avoided that, the bend still remained and the new membrane growing in from all sides piled up higher and higher in a wave of encircling granulations until there was left a mound of new tissue nearly or quite as prominent as the mass removed. This took months to flatten down. In general, the lot of the patient with septal deformity was not a happy one.

The submucous operation has now come to remedy these defects, and to nearly take the place of the older treatments. For years many of our best rhinologists have practiced dissecting up flaps of membrane before removing a spur, and some very creditable work has been done even with crude instruments. Krieg of Stuttgart as early as 1886 was bold enough to resect parts of the framework of the septum under the membrane, and gave to this operation the name, now so familiar, of the "window resection." This procedure, for years nearly forgotten, has lately become more and more common with varying technique in the hands of different operators until it now bids fair to entirely take the place of the older operations. The nearly bloodless field afforded by the suprarenal preparations of the last three or four years has been a wonderful help in allowing the surgeon to reach the more remote parts of the septum, and various instruments have been devised exquisitely adapted to this delicate piece of surgery. Of the instruments designed for this work, the writer unhesitatingly gives first place to those of Otto Freer. They leave little to be desired. The heavier elevators as used extensively in Europe and by many in this country, have not tended to preserve the membrane, but have had

the opposite effect. Along the ridge of a deflection, nothing he has yet tried can take the place of careful dissection with delicate instruments. The swivel knife of Ballenger and the V-shaped chisel have been important helps.

The technique of the operation as done by the author is as follows: The nasal fossae are first carefully sprayed with a bland alkaline wash. Then after a preliminary spray of 2 per cent. cocaine solution, thin layers of cotton saturated with equal parts of 1/1000 adrenalin solution and 10 per cent. cocaine are carefully packed

FIG. VI.

Vertical longitudinal section to left of septum, showing large bony deflection of left septum with primary cut through membrane in front.

FIG. VII.

Showing membrane largely dissected up from convexity.

against the entire operative field on both sides. It requires from fifteen minutes to an hour to get the septum thoroughly anesthetized, and rubbing the parts with a wet pledget dipped in crystals of cocaine muriate may be required—this always after blanching the membrane with adrenalin or other suprarenal preparation. After the parts are thoroughly anesthetized and as nearly bloodless as can be, self-retaining speculae are inserted on both sides and a little water or perhaps 1 per cent. cocaine solution is injected by a hypodermic needle to assist in loosening the mucoperichondrium from the underlying cartilage. A vertical or slanting incision is then made down to the carti-

lage or bone on the side of the convexity and about one-quarter of an inch in front of the tissue that is to be removed, Fig: VI. This incision should be made extensive enough to allow free view of the parts to be operated upon and can be extended into a horizontal L-shape if required. Its position depends upon the part to be removed. Usually it is just at the back part of the vestibule, but it may be well in front of that or quite far back in the nose.

With a small sharp elevator the mucous membrane with its closely attached perichondrium or periosteum is carefully dissected away from the framework of the septum. Great care is required here. The success or failure of the operation depends largely upon this first dissection. This part of the work requires extreme caution, as the perichondrium is extremely adherent to the cartilage in the vestibule, and is quite easily lacerated. After the membranes are well started from the cartilage or bone in front, a dull elevator of the same pattern is substituted, and the membrane raised thoroughly from the septum over and beyond the entire area to be removed, Fig. VII. This is easy over the smooth part of the bone, but over the ridge of the angle, and along the junction of the vomer with the quadrangular cartilage or plate of the ethmoid we may again meet difficulty and have to resort to very careful dissection often with the sharp elevator. When possible to get at the lower part of a spur from in front it is best to work up to the ridge from both directions. Where this is not possible, as frequently happens, it is best to wait until the upper part of the septum has been removed so as to allow more room.

When the membranes are well freed from the entire convexity of the septum a sharp moderately curved knife is used to cut through the thickness of the cartilage in front. This must be carefully done so as to cut down to the membranes of the other side, but not through them, Fig. VIII. This is an extremely delicate part of the work and only experience will prevent the operator occasionally cutting through the membranes of the concavity. Through this hole in the cartilage, the blunt elevator is used to raise the membrane precisely as on the opposite side. The instrument can be guided by sight as it moves under the membrane of the concave side, Fig. IX. The sharp elevator will occasionally have to be used here also, and the membrane must be raised as widely as on the other side. We have now the frame work of the septum stripped of its mucoperiosteum on both sides and cut through only a short distance back of the original incision on the convex side. Through this cut, if well forward, the swivel knife can be placed astride of the quadrangular cartilage, and with a steady pressure up, back, down and forward, the entire cartilage necessary

to remove can be cut away with one sweep and drawn out by forceps. The instrument must be held under perfect control as a sudden quick lunge may tear away membrane and seriously mar the success of the operation.

After the removal of the cartilage in this manner and frequently when the swivel knife is not used at all, the V-shaped chisel is placed astride the cut edge of the septum and the entire deflected part chiseled away piecemeal, Fig. X, and removed by forceps. In front this is comparatively easy. Further back it is difficult to separate the pieces

FIG. VIII.
Button-holing the cartilage, in order to show technic. The whole membrane has been folded back.

FIG. IX.
Taken from another specimen, showing instrument inserted through opposite side, dissecting up membrane on concave side of septum.

of bone from their posterior attachment. Bone cutting forceps are here the natural instrument, but the perfect bone cutting forceps for septal work has yet to be made. The Freer forceps works well in larger noses and when a large flap has been raised, Fig. XI, but in many cases it is necessary to cautiously twist away the partially severed pieces of bone with a heavy forceps or saw them with a right angled saw of the Kyle pattern. During the chiseling away of the septum the membranes on both sides can be held away by various forms of slender retractors, which will greatly facilitate the work.

After all the offending parts of the septum have been resected,

the membrane on the convex side should be smoothed down into position where it should hang vertically, leaving a membranous septum in place of the former deflection, Fig. XII. The author then inserts a thin splint of dental gutta percha on the side from which he operates and packs it down gently upon the membrane with a strip of sterile gauze so as to hold the flap or pocket in perfect place. The gauze strip is removed on the second day. The nose is cleaned and the gutta percha splint allowed to stay for two days more at which time the flap has usually healed down perfectly and the only after

FIG. X.
Membrane folded back to show chiseling away of bone with V-shaped chisel.

FIG. XI.
Cutting away bone at back with Freer's forceps. Membrane removed to show technic.

treatment required is cleaning with alkaline washes until no crusting of mucous takes place. This is usually accomplished in from two to five weeks. The patient has good breathing room from the time the splint is removed.

The danger of the operation is principally the possible formation of a perforation. If, by any slip during the work, the membrane is torn on both sides so that the tears come together, a permanent perforation will almost surely result. A cut only in the one membrane, if covered by sound membrane on the other side, will practically always heal over easily and quickly. Even where quite a piece of membrane has been lost from one side, it ultimately heals, provided always that there is not a loss directly opposite. With experi-

ence, laceration of the membranes can nearly always be avoided and perforation is more rare than under the older operations. The author has notes of fifty-six resections of the septum in his practice and has had only two small perforations, and these occurred in his first six cases.

The after results of this operation are very gratifying. The septum stays in its natural vertical position without thickening and with entire relief from nasal obstruction. Under the customary treatment, the irritated nasal mucosa comes back to normal condition, and cases that have resisted treatment for years often yield in a few weeks.

FIG. XII.
Complete operation showing membranous septum somewhat depressed, in place of former deflection.

FIG. XIII.
Completed operation but with membrane removed to show whole extent of re-section.

With care to leave about one-half inch of the quadrangular cartilage as a support, there need never be any falling in of the tip of the nose. A new framework soon forms if the periosteum and perichondrium are preserved and the septum presents, even under rigid examination, a perfectly normal condition.

The reparative powers of the nasal mucous membrane are well known, but it has often been a cause of wonder to see how perfectly a septum would heal after perhaps half of its framework had been cut away.

After removal of spurs by this method, the healing, in comparison

with the older plan, is comparable to the difference that exists in the healing of a properly made stump after amputation of a finger and that where the cut end would be allowed to scar over by granulation.

In a number of the illustrations the author has folded up the membrane to show more clearly the technique, but in practice this is not required. The membrane is held away from both sides of the septum by slender retractors passed through the primary incision and the button hole of the cartilage shown in Fig. VIII.

For the preparation of the photographs illustrating this article the author is indebted to Dr. Clark W. Hawley, of Chicago.

TREATMENT OF SEPSIS.*

JOHN M. DODD, M. D.
ASHLAND.

Sepsis, as one of the diseased conditions of the human body, has been known for all time and is still encountered with unabating frequency. Modern science has learned its cause and points out the principles of its treatment, and in some forms of the disease has discovered a specific. Sepsis is now universally recognized as a condition resulting from the invasion of the body by pathogenic bacteria in numbers sufficient to overcome the natural resistance of the host, and by the production of toxines so disturbs the physiological functions as to cause symptoms of disease. Sepsis is a general term so broad in its application as to embrace all acute diseases, but in the short time at our disposal we will confine our paper to a consideration of the forms attending the invasion by pus forming bacteria.

With a few exceptions the treatment of septic conditions is empirical. These exceptions are smallpox, diphtheria, rabies and tetanus. For these we have a specific virus or serum. Antitoxic sera for other forms of infection exist but they cannot as yet be called specifics.

The light of experience alone must guide us until we are able to determine what particular germ has invaded the body and find what is necessary to neutralize the toxines and to increase the resistance of the body to that particular germ; then that principle, be it the product of physiological or synthetic chemistry, can be added to the blood of the host and a cure result without all the dire results which we, in the present imperfect state of our pathological knowledge, are compelled to witness.

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*Read before the 60th Annual Meeting of the State Medical Society of Wisconsin, at Milwaukee, June 27, 1906.

I believe that serum therapy will in time be an almost certain means of curing sepsis, but until that time comes we must be guided by the light of experience of ourselves and others in the treatment of infections which come to us in great numbers and in varied forms.

In the treatment of these conditions two indications predominate, the one depending to a great extent on the other: to inhibit the growth of the germs and to neutralize their toxines, and to increase or build up the resistance of the host.

To accomplish the first it is only necessary to inject an appropriate serum as in diphtheria. For the latter we must depend on phagocytosis, and in our present knowledge this power of the leucocytes to destroy invading germs is the chief element in the curative principle, and all other forces which contribute to the production of immunity have for their object the support of this law propounded by Metchnikoff years ago.

Let us see what Nature does and be guided by her example. When a tissue is invaded by septic germs there is at once an increased blood supply sent to the part, the vessels become enlarged, there is redness, there is increased chemical action due to the presence of the invader and its toxine, there is heat, there is rapid transudation of serum into the perivascular tissues accompanied by migration of leucocytes that cause swelling; the attending stretching of nerve filaments and irritation of the toxines cause pain, so that we have the classical cycle of inflammation which has been known since the earliest days of medicine, but not understood until a comparatively recent period.

This is the storm center of the infection. Phagocytosis is going on. If the germs are sufficiently virulent the phagocytes die and become pus cells, and their accumulation becomes a pus focus or abscess. While all this is taking place the lymph spaces, channels and nodes are busy taking up and distributing the products of the warfare, and what was primarily a local, becomes a general infection with symptoms modified only by the virulence of the infection and the susceptibility of the patient.

The logical conclusion, therefore, is that if we cannot attack the germ directly we must keep the invaded body in the highest state of efficiency, and to do this, proper food and medication must be given.

The channels of elimination must be kept open as a drainage from the body generally, and the infected fluids must be removed from the infected focus by means of a local drainage through puncture if necessary.

If natural resistance cannot be stimulated by a specific serum it must be built up by appropriate nourishment. Medication is secondary and can only help to control physiological function.

The question of nourishing the patient is often a serious one, since with the weakening effect of the infection the digestive forces are weakened and food not tolerated; but predigested or easily digested foods either by stomach or rectum can usually be given in sufficient quantity.

As to medical remedies, I have little confidence in any of them further than as stated before to keep the bodily functions properly performed, though being accustomed to look at these cases from the standpoint of the surgeon, I may have overlooked the value of medicines.

We are told that alcohol, quinine and strychnia are the sheet anchors in the treatment of sepsis, and many good authorities add others to this list, especially nuclein and echinacea, and since none of these are apt to do harm and may do good, we may give them.

If alcohol is to be given I believe its beneficial effects are early and late, and probably not in the intermediate stage.

In a recent personal experience with an infected finger I found that the amount of alcohol contained in a glass of beer raised the blood pressure and increased markedly the pain in the infected area.

Alcohol and strychnia would seem to be more applicable to those cases characterized by general systemic infection as evidenced by sweating and relaxation, rather than in those cases where the inflammatory products are confined within a localized focus as evidenced by throbbing pain.

With those fulminant cases of infection which pursue a rapidly fatal course, I have had little experience, though with less acute and chronic forms it has been large. In the first mentioned class I should rely very largely on stimulants to carry the patient over the shock of the invasion and until the reserve forces of the patient could be summoned in defense.

The cases of this nature I have seen—chiefly those of puerperal origin—seemed to defy all treatment, and I believe you have all found the same true.

Drainage from the storm center is to be accomplished by dilatation of the capillaries and veins, thus favoring the ready passage of blood through the diseased tissues. Poultices, heat and moisture, do this, and that is their only value though it is at times great. I have much confidence in the old-fashioned flax-seed poultice properly made and applied, even though its reputation suffered greatly during the ultra-aseptic period of surgical science.

The mixture of kaolin, glycerine and essential oils under the various trade names has many adherents in the profession and may have some value. Theoretically it ought to be good since the retention of heat and the hygroscopic effect of the glycerine in drawing water from the tissues would favor dilatation of the capillaries and transudation through the skin. It is necessary that good arterial blood be supplied to the invaded tissue and that the vitiated venous blood should be carried away. It is also proper to encourage as much as possible the discharge of lymph since this fluid is the chief medium by which the bacteria and their toxines find their way into the systemic circulation, and on account of the peculiar structure of these lymph channels the disease elements find ready access to the surrounding tissues. An infected focus accompanied by extending lymphangitis will show a red area for some distance on each side of the lymph stream. Such cases are immediately benefited by multiple puncture in this reddened streak, and though the discharge from the punctures soon stops, the excess of septic matter is thrown off and the natural resistance of the tissues comes to the rescue.

Incision of an inflamed area is beneficial in proportion to the amount of local depletion accomplished and to cutting efferent rather than afferent blood vessels. Therefore incision of such area must be done freely but carefully. Iodoform gauze packing is good for the reason that the cotton fibres of the fabric make a good capillary drain and draw fluid from the tissues, the iodoform in the meantime inhibiting the growth of the bacteria, and when the gauze is prepared by the glycerine method this latter agent increases greatly the hygroscopic effect of the gauze. These opened lymph spaces soon become sealed and the discharge stops, but not until sufficient drainage has been provided to preserve the tissues from extensive pressure, necrosis or destruction by germ invasion.

The greatest number of infections occur in the hands and feet—no doubt because of greater exposure of these parts to injury and to the bacteria. The method of treatment of these cases which gives me greatest satisfaction is to incise or puncture the infected area and cover the part with gauze wet in a 1/2000 bichloride solution, cover with gutta percha tissue, cotton and bandage, and put the part at rest. This retains heat and moisture and the mercury seems to be absorbed by the tissues in sufficient amount to exert its antiseptic effect. After 24 hours of such treatment a reddened and inflamed surface will be found white and shriveled and the condition much improved. The red streaks upward toward the body will yield to the same treatment, or if multiple punctures cannot be made for any reason a superficial

lymphangitis will yield readily to inunction with Unguentum Credé. This latter agent has given me excellent results in the treatment of erysipelas and other forms of dermatitis of apparent streptococcic origin.

To properly apply the remedy the skin should be washed with soap and water and dried, the ointment then being gently rubbed into the skin, and a sheet of gutta percha tissue applied to extend for two or three inches beyond the blackened area. One of the objections to the ointment is that it blackens everything it touches. The tissue avoids this and at the same time holds the Credé close to the skin, and absorption is better favored.

In the treatment of sepsis the first object of treatment is to minimize the blood poisoning, and the second is to prevent the destruction of tissue and abscess formation. This is possible in superficial infection, but in those more deeply seated, as for instance when bone or tendon is involved, there will almost certainly be some sloughing. These deep seated inflammations are helped by poultices though early incision must not be neglected.

Wherever tissue is being destroyed and pus is forming, drainage should be provided, and with the possible exception of abscess resulting from tubercular disease of the spine, I believe in early and free incision. Tubercular abscesses should be aspirated and the cavities injected with iodoform emulsion.

Puerperal sepsis is a form of the disease under consideration which gives us the greatest anxiety—the more so because we generally feel that it should not have occurred and might have been prevented. It is peculiarly alarming to the doctor on account of its sudden onset and the violence of its symptoms. Thorough washing of the uterine cavity should be done being careful not to curette or open up new portals of infection. Drainage of the cavity is important, as infection is often kept up in a flexed uterus during the second week of convalescence. I have often observed such a uterus discharge an ounce or two of lochia when the canal was straightened out with a probe. It is my practice to pack the infected uterus loosely with iodoform gauze, and if there are indications that the infection has extended to the periuterine tissues I open the cul-de-sac and introduce iodoform drainage. I have never seen harm follow opening of the cul-de-sac and am confident it has saved some patients for me. In these cases it is my practice to apply Unguentum Credé to the lower abdomen and to the groins. In my cases I have found very little need of constitutional treatment other than to keep the body functions in proper condition.

I recently asked a medical friend who stands high in the counsels of the profession, what internal treatment he gave in such cases, his answer was "milk."

The most appalling infection with which we meet is that of the peritoneum due to appendicitis or the rupture of some internal viscus.

The watchword in the treatment is—get at it early, open, remove the offending organ or repair the rupture, wipe out and drain. The greatest cause of failure in these cases is diagnosis made too late. The diagnosis of peritonitis is comparatively easy, and the only treatment, early operation. Of course, if the diagnosis is made late and the infective focus is walled off, it is sometimes safer to wait, but more cases can be saved by operation within the first few hours of the onset than by any other means.

These conclusions I have reached after an extensive experience in the treatment of cases of acute septic peritonitis, all of which have died when the infection was general and over 24 hours old.

With this brief outline of the treatment of some forms of sepsis I leave a subject fraught with the greatest interest to our profession, and a constant menace to life and health of our patients as well as ourselves.

We believe we are approaching the time when scientists will give us the means of determining the cause of sepsis in each individual case, and that we will have the remedy at hand for its successful treatment.

Those patient investigators who are endeavoring to determine how the human organism may successfully combat the invasion of pathogenic bacteria, are engaged in a work which must eventually result in the highest good to mankind.

Discussion.

DR. WILLIAM E. GROUND, Superior:—Dr. Dodd's paper is rather difficult of discussion owing to the fact that he has treated the subject so exhaustively, and what I shall say is intended more as an expression of my individual view rather than any attempt at elaboration.

With the subject of infection in its broad sense we are all familiar, dealing with the local manifestations of sepsis, constitutes largely the surgeon's work, and any suggestion as to the best management of these lesions is welcomed by him. As to what determines the infection—we have to consider the natural resistance of the patient to the kind of microorganism, its dose and its virulency. It seems to me that the most important single factor is the virulency of the germ. After some fifteen years of active surgical work one gets to forming certain fixed ideas, about things in which one is very much interested, and is of course making continual careful observations. We observe that wounds heal much more readily, other things being equal, outside of the confines of the average hospital; that it is necessary to exert much more care

to prevent wounds from becoming infected in a hospital than out. This is so for two reasons: one is the increased opportunity for infection, and the other is the increased virulency of the germ owing to close proximity to other infected cases. I have noticed in cases of railway injuries where the injured part had gross dirt and grease literally ground into the tissues, that healing would in the vast majority of cases go on uninterruptedly.

When infection has gained a footing in a wound it is well to have a definite plan of action. In the first place, if the septic process has not assumed too aggressive a form the application of cold to inhibit germ growth and diminish the pain by lessening vascular engorgement is indicated. Blood pressure may be reduced and pain mitigated by elevation if this is available. Should the infective process continue, as evidenced by the increase of redness, heat, pain and tenderness, it might be well to favor local leucocytosis by the application of heat and moisture. This dilates the vessels and flushes so to speak the involved area. Bier's congestive treatment has given good results in properly selected cases in my hands. The application of antiseptic remedies, unless in direct contact with the infected focus offers nothing and in delicate structures may actually do harm. The use of specific sera has only limited application at present, but the indication for the extension of their therapeutic use is very encouraging. The support of the patient's general condition must not be neglected, but except in an emergency the use of stimulants is contraindicated, and in my opinion, the use of drugs is of very limited value. So called stimulants only use up energy the body has already formed, they create nothing, they only waste it. Vital processes can only be established and maintained by food, and of the foods milk is by far the best. I have absolutely no confidence in the patent foods, they are not dependable. If the digestive processes are weak, peptonizing the milk is indicated. The use of animal broths, while of no food value themselves, may, as pointed out by Pawlow, stimulate the flow of gastric juice in the absence of an appetite. We now come to the sheet-anchor in the treatment of local sepsis, *drainage*. By incision and drainage we relieve tension, allow the liberation of blood, serum and pus together with the infecting micro-organisms. In an infected limb early incision not only allows the escape of the serum but relieves the pressure and prevents necrosis. Where abscess has formed free drainage is all that is necessary, no irrigation, no squeezing or milking should be indulged in. By irrigating a cavity natural barriers are broken down and infection is scattered. In the early days when appendicitis operations consisted mostly in the opening of abscesses, the Kelly pad and irrigating bag was much in evidence. Now these appliances are not seen in my work, first, because most cases of appendicitis are operated before the septic process extends, and second, because I do not irrigate my appendiceal abscesses anyhow. In case of general peritonitis it is not a question of the desirability of drainage, but as to whether it can be accomplished, and to what extent and how. Without going into this question in detail, my convictions are to the effect that the source of infection should be shut off or removed, the parts immediately contaminated should be carefully cleansed, sparing the delicate peritoneum all the injury possible, usually irrigating the cavity with hot salt solution if the infection is recent, placing the patient in the Fowler position with large drainage tubes in the most dependent portion of

the abdominal cavity. This course has given me by far the best results, in this class. With reference to puerperal sepsis, while the infection atrium may be through rents or abrasions in the vulva, vagina or cervix, undoubtedly the most frequent source is in the uterus itself, and here scraping, manipulating and irrigating are just as much out of place as in the abscess, as the infected uterus is practically an abscess, requiring the same treatment viz., drainage. Just here I do not agree with the doctor when he advises the introduction of gauze into the womb. My practice is to carefully remove all debris and to insert a large glass or rubber drainage tube. With the opening of the cul de sac in cases where the infection has gotten into the periuterine tissues I am in full accord.

DR. G. V. MEARS of Fond du Lac:—I take great interest in this subject, more than I possibly would had I not gone through two sieges of it myself. Drugs are of little use in sepsis; in all parts where is can be had, thorough drainage with a good hot dressing are most efficient and most soothing. Dry dressings have no place in treating sepsis. It adds to the treatment to do as little hurting as possible, and if you have not a large opening, with the edges of the wound kept apart you cause unnecessary suffering. This squirting water through a small hole is no agreeable thing for the patient.

Now as to feeding: If you put food into a stomach which cannot digest anything, you only add a greater load on your patient; it is better to give nothing than to give what won't digest, for the distress from indigestion when you are sick is quite different from the same thing when you are well.

DR. R. G. SAYLE of Milwaukee:—A tendon is not the first point infected as a rule in hand infection. Our attention should be careful and painstaking with infections in their early stages. After we get infection into the tendons of course free incision and drainage are the paramount methods to follow.

All of us who practise surgery have much to do with infection and I do not rise to say much about the treatment, which is pretty well laid down, except to object to the application which Dr. Dodd recommended (unless it be to a limited surface) of one to 1000 solution of bichloride of mercury. I am sure he will meet with poisoning or dermatitis very often if he follows this out, with dressings of any large extent; and the large hot dressings, which the doctor mentioned, and which everybody who has had infected fingers knows are comfortable, are dangerous in that strength.

There is another point mentioned to which I wish to refer. I do not know much about the ointment he used, but I object to following his instructions as to "rubbing in well"; for rubbing any infected part is criminal massage. Let an infected part alone. There is nothing better than the old treatment and the old advice that Dr. Allen gave us, whether in acute disturbances of digestion, (which the doctor probably had after his anesthetic and the reason he did not like milk for about a week, which they should not have fed him if he showed anesthetic dyspepsia) or whether it be an acute infection, or whatever it be, we must avoid anything which will produce a motion, and this massage is. Dr. Allen gave us those principles of treatment in acute conditions long ago, when he advised complete rest of any part the seat of acute disease. The nearer you can rest a point that is infected the better. In the incipient stage of the infection it is the paramount treatment.

When suppuration has taken place evacuation should be done, because pus belongs outside of the body, but always aim to keep at rest the surrounding tissue. In the case of hands and feet, do not treat the finger or toe alone, but the whole arm and leg, and maintain rest. Do not rub and do not palpate the seat of infection, and do not be so particular to find the focus of the infection as to endanger sending the patient home with an extension of his infection through criminal massage.

DR. L. G. NOLTE of Milwaukee:—There is not much to be said about this subject, further than has already been covered, but I would like to say a few words about moist dressings. I have for many years used moist dressings, and the antiseptic I have used in infections, particularly of the hand and lymphatics, has been a one per cent carbolic acid solution, continuously applied every half hour or hour to the parts, that is poured on the gauze keeping it constantly wet.

It has been said that carbolic acid causes gangrene, but it will never do it if you use it right. I never use more than a one per cent solution, for the simple reason that there is a constant evaporation of the water, and consequently constant concentration of the carbolic acid. The result is, if you use a five per cent solution, as is sometimes done, you will soon have the equal of a 10 or 15 per cent solution, due to evaporation of the water. The experience I have had with a one per cent solution is superb, grand—I have never had a case of dermatitis, necrosis or gangrene result although I have treated hundreds of patients by this method.

One more word about carbolic acid and its beautiful action—it is this; that it is an anesthetic, it is an analgesic, and cools the parts and naturally keeps the blood from the parts, and in more than one way is the ideal thing, and in every way it beats bichloride of mercury and boric acid. I wish you would all try it, and in one per cent solution you need never fear any bad results. Should gangrene occur in any case make up your mind it is due to some other cause than the antiseptic you are using.

DR. DODD:—In regard to the application of wet dressing: we apply them and hold in the heat and moisture with the rubber tissue as mentioned, and that application is not changed until the dressings are dry. If it is necessary to wet them again, the tissue is lifted up and is moistened with warm water, Bichloride is not added again, because as the gentleman who last spoke said, there is a continually increasing concentration of the solution applied. Now I use bichloride that way and apply it to an entire arm or leg and have not had any bad results from it. I used it on myself recently on an infected hand, and the only thing I got was a peeling off of the skin after the sepsis had subsided.

I accept the criticisms of Dr. Sayle, and it was not my intention to recommend in my paper the rubbing in of the Crede ointment along the infected streak. If it is applied over the region of the lymphatics in the noninfected area, for purposes of general absorption, then it should be rubbed in; but it is my practice, in applying it along the infected streak over the lymphatic vessels, to simply apply a gentle pressure or rubbing sufficient to distribute it over the surface and then apply rubber tissue and cover it with cotton and a bandage. The tissue holds the ointment in contact with the skin and favors its absorption without injury or "the criminal massage" that the doctor speaks of.

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EDITORIAL COMMENT.

THE PRESCRIBING OF PROPRIETARIES.

The work that has been done, and is being done, by the Council on Pharmacy and Chemistry of the American Medical Association possesses a value which is greater than that of the mere information which it conveys.

It has been able to convict manufacturing pharmacists hitherto held as honest and reliable, of imposition and fraud; it has placed us in possession of the true merits or demerits of many proprietary compounds, and it has pointed out to us in no mistakable manner the fact that our ranks are filled with practitioners who, having reached, however prematurely, the age of permanent mental fatigue, prefer prescribing the ready-made compounds so glibly recommended to us by "samplers", to elaborating for themselves appropriate combinations of therapeutic agents needed in a given case.

The most numerously patronized drug stores in all our large cities have on their files great numbers of prescriptions calling for proprietary articles and the proportion of these seems to have been enormously on the increase during the past ten years.

As it appears to us the reason for this condition of affairs is to be found in the almost total neglect of the medical schools in the matter of training students in prescription writing. It is to be hoped that these institutions will awake to a realizing sense of their responsibility in this regard and take immediate steps to correct the deficiency.

One can scarcely blame the manufacturers for their commercial enterprise, nor the "samplers" for theirs, when the above facts are remembered, but it would seem that the time has now arrived when we should each "highly resolve" that in the future we will prescribe no proprietary compound, no matter how pharmaceutically "elegant" unless we know its exact composition.

As the preliminary education demanded of medical students has now reached a full four years of High School work, and as the old generation of "practical physicians" is passing rapidly away—God be praised—we may look for a better average of intelligence on the part of physicians, and as a consequence a class of men who will less readily fall into the snare of the pharmaceutic fowler.

THE DETENTION HOSPITAL ASSURED.

Temporary detention quarters for the alleged insane will probably soon be established in Milwaukee, in the Emergency Hospital. For many years the need for such an institution has been felt, but every effort to have the question considered met with opposition. The trustees of the Emergency Hospital have now declared their willingness to put one floor of the hospital at the city's disposal for this purpose, and, as there is little likelihood that the council committee on health will refuse to endorse the plan, it would seem that the detention quarters are virtually assured. It is estimated that with an outlay of about $2,200, the necessary quarters can be provided.

THE WISCONSIN MEDICAL UNION.

We have, on two previous occasions, honored the Wisconsin Medical Union with notice in our pages. We do so again at the risk of incurring censure. A communication that lies before us, and which we reproduce verbatim below, may prove somewhat interesting to the members of the profession who—not yet members of the Union—may

feel themselves slighted at not having received an invitation to join so select a society of practitioners at only one dollar a head. The objects of this Union are sufficiently set forth in this pronunciamento and make other comment superfluous.

WISCONSIN MEDICAL UNION
OF PHYSICIANS AND SURGEONS.

OFFICE OF SECRETARY, 49 NORTHWESTERN AVE.

Oshkosh, Wis., October 1, 1906.

Dear Doctor:—Are you interested in Medical liberty and a liberal code of Medical Ethics that will enable you to be honest with yourself, your patient and with your fellow practitioner? If so, you should join our organization.

You are no doubt aware of our National Organization, the American Medical Union, organized at Chicago in 1899 by eminent men of the Regular Homeopathic, Eclectic and Physic Medical Schools of practice. That Society adopted an up-to-date code of ethics at their annual meeting January, 1906, which code was adopted by our State Union August 15, 1906.

Our State Union was incorporated in 1903, and represents the four schools above mentioned. Our Union (and the members prior to the organization) have done effectual work during the Legislature since 1896 in preventing the enactment of unjust Medical Acts, a number of bills since that time would, if passed, have put out of practice a number of respectable practitioners who have now practiced in this state from 15 to 50 years. And while the Registration Act of 1899 was intended to settle beyond dispute the rights of all in practice on or before July 1, 1897, the Wisconsin State Board of Medical Examiners have never tired of disputing the rights of some of these registered practitioners in part or whole, several have spent from $200 to $1,000 in self-defense, the Board hoping to get some decision to establish a precedent. At a trial September 17, 1906, it was brought out that there are about 250 registered doctors in the state under ban. But if the liberal element in our profession will take an interest in this work we can get a little bill through the legislature this winter that will forever settle these disputes. Doctor, the Secretary of this Union, was a member of one of the Old State Medical Societies prior to 1897, and has been in the Medical Liberty work since as well as the President who has practiced medicine over 50 years. We battle for principle, not for ourselves now.

Membership fee is $1.00. Certificate, if wanted, $1.00 extra.

R. P. HANSEN, M. D., *Secretary.*
P. A. GRIFFITH, M. D., *President.*
(Oshkosh.)

N. B. R. P. Hansen, Sec'y, located in Oshkosh in 1890, after having attended lectures at the Battle Creek Sanitarium where he graduated in "The Medical Uses of Massage, Electricity, Water, etc." and general nursing. In 1895 he received a diploma from the Milwaukee Eclectic College, a diploma mill long since defunct.

P. A. Griffith, President, is also a graduate of the Milwaukee Eclectic College. For many years prior to his obtaining this diploma he was established in Oshkosh as a druggist. Therefore if there is truth in the statement made above that the President has practiced for 50 years, it must be evident that he was doing so contrary to law the greater part of that period.

F. X. Schaeffer, under numerous indictments in the Milwaukee Courts, and now being tried on the charge of practicing medicine without a license, was an officer of the Union in 1905.

RESTRICTIONS FOR FOREIGNERS ABROAD.

Fearful of competition, there is now considerable agitation in Germany because of the encroachment of foreign students. The first demonstration against the invasion of outside talent was made some years ago by manufacturers who felt that the too liberal exchange of ideas, and the free access to their workshops, might and would educate the foreign world in matters of manufacture and commerce, to the detriment of home institutions. For this reason they have at various times clamored for the enactment of laws containing restrictive measures that would make impossible any large access of students. Now German students are clamoring for the levying of larger matriculation and tuition fees upon foreign students, and they demand further that preference be shown the Germans in the assignment of places in laboratories and recitation rooms. During the past summer, 3,888 foreign students matriculated in Germany, while ten years ago the number was but 2,196. Of 960 studying medicine at Berlin, 37 per cent. (360) were foreigners, and at Heidelberg 23 per cent.

The liberal spirit shown in America toward all who look for higher education, causes us to frown upon this demonstration of hostility to foreign student invasion abroad. But, reverse the situation: with 25 to 37 per cent. foreign students who pay the same tuition, who are recruited from a class equal to our own in the social scale, having a preliminary education at least equal to our own—thus putting them on a footing of equality with ourselves—what would be our attitude under these circumstances? We too might feel that our educational treasury is being looted for the benefit of others, at our own expense, and to our direct loss. Viewed in this light, one may feel that there is some justice in the attitude taken by the Germans.

We need, however, not feel any alarm, nor fear that the avenues of higher education are to be closed against us. The last decade has witnessed the marvelous growth of our own institutions. The scien-

tific spirit of the old world has been implanted upon this soil, and, as time goes on, and the need for foreign post-graduate training becomes less, the enrollment of American students in foreign universities will suffer a natural, gradual reduction. In this way the question of foreign student invasion will be solved.

TUBERCULOSIS IN FRANCE.

A valuable and timely report of the prevalence of tuberculosis in France has recently been compiled for our government by the United States Consul at Paris. It is estimated that 151,000 people die each year of the disease in that country, or 39 to each 10,000 inhabitants as against only 22 in 10,000 in Germany. Some allowance must be made for the different manner of taking the statistics in the two countries and yet it would appear that the advantage is greatly in favor of Germany where measures of hygiene and sanitation have been in effect for a number of years.

It has been established that tuberculosis decreases in an almost regular proportion to the density of population, *e. g.*

Paris	45.2
Cities about 100,000 inhabitants	34.4
Cities of 30,000 to 100,000 inhabitants	32.4
Cities of 20,000 to 30,000 inhabitants	30.8
Cities of 10,000 to 20,000 inhabitants	26.6
Cities of 5,000 to 10,000 inhabitants	23.4
Cities of 1,000 to 5,000 inhabitants	20.4

In public measures for the suppression of the disease France seems to suffer even by comparison with most of our American states, a discussion of the necessity of compulsory notification of cases having met with a storm of opposition.

In reference to the subject of unsanitary dwellings, it is reported that out of 800,000 habitations under observation, tuberculosis was found to be more prevalent in those houses where there was little light.

Occupations especially dangerous have been carefully investigated. Among postoffice and laundry employees a disastrous condition of affairs has been revealed. From statistics made at Billoncourt, Boulogne, etc., (districts where laundries abound) the mortality from tuberculosis reached the alarming total of 75 per cent. This surely shows the need of certain precautions, such as special bags for the collection of soiled linen, certainly of persons affected with tuberculosis, so that the contents can be disinfected before being handled in the usual way.

The Paris bakers recently formed an organization for the improvement of the unsanitary conditions under which they have to work. It is stated that out of 400,000 bakers in Paris, 240,000 suffer with tuberculosis, and this in spite of governmental inspection of bakeries. A professional bakers' school has been opened to educate men to practice hygienic methods.

Calmette recently stated that his experiments prove that even sterilization by heat of milk from tuberculous cows does not render it safe either for persons suffering from tuberculosis or even for those free from it.

The tuberculosis commission has been examining a cuspidor invented by M. Fournier. It is a cheap construction and needs no cleaning or touching by hand. It consists of a waterproof cardboard cylinder filled with pulverized peat which is impregnated with a hygroscopic and antiseptic substance. This receptacle is provided with a lid opened by a foot pedal. When it needs emptying it can be seized with a pair of tongs and thrown in the fire.

The state department of public charities is considering the establishment of special hospitals for isolation and for proper treatment of the tuberculous. Not as much has been accomplished in France along this line as in America, although probably the next few years will show them in the lead when a comprehensive scheme of state hospitals and well enforced laws will be taken up with vigor.

NEWS ITEMS AND PERSONALS.

Typhoid Fever has appeared in Kenosha. A small epidemic is reported.

Dr. A. W. Ladewig of Milwaukee, was seriously burned on October 2d, about the face and hands, by the explosion of a gas stove in his office.

Dr. G. F. Colter, of Marinette, was reappointed by Gov. Davidson a member of the advisory board of the Wisconsin State Tuberculosis Sanitarium.

The Wisconsin Board of Medical Examiners has made known the fact that physicians whose practice extends over more than one county must obtain a license in each.

Dr. J. V. May, of Red Granite, has gone to London, England, to take up the study of eye, ear, nose and throat. He is succeeded by Dr. H. E. Clawson, a graduate of the Illinois Medical College.

Dr. August Sauthoff, of Madison, has been elected by the State Board of Control as assistant physician at the State Hospital for the Insane at Mendota. The position was won in a competitive civil service examination.

Dr. R. H. Sturgeon, one of the best known physicians in the Upper Peninsula, died at his hospital in Iron River, Mich., September 28, from injuries received by being run into by a switch engine. He was 48 years of age.

A Home for Incurables is to be built by the Milwaukee Hospital. This has been made possible through the generosity of Mr. and Mrs. Frederick Layton, who have already shown their interest in the hospital in many improvements made during the past few years.

Dr. F. X. Schaeffer, of Milwaukee, charged with having performed an abortion, was discharged by the court. The complaint was preferred by one of the Health Inspectors to whom the patient confessed that an operation had been performed. At the trial this was denied, it being admitted that medicines only were prescribed.

Dr. Henry F. Conover, of Crivitz, was fatally shot on October 3d, in an effort to quell the noise incident to the serenading of a newly married couple. It is claimed that the shooting was accidental. He was the son of S. H. Conover, a wealthy resident of Plymouth, Wis., and was a graduate of the Northwestern University.

To Chess Players.—The Tri-State Chess Association, an association of over 400 players, the majority of whom reside in the Mississippi Valley, is arranging a correspondence match at chess, of the doctors vs. the laity. It is desired to have physicians from every section of the United States engage in this match. Therefore, every chess-loving physician is hereby invited to become a consultant in the case. The match will begin early in November, entries accepted until Jan. 1. All who will play are urged to send name and address to the president, stating how many games they will take on. There is no fee attached to the match. Address, DR. VAN NUYS, *Pres.*, Lorain. O.

Dr. John W. Dryer, of Reedsburg, died on Oct. 8th, of laryngeal and pulmonary tuberculosis. He was well and favorably known in Milwaukee, having been a resident of the city for over fifteen years, and having graduated from the Milwaukee Medical College. Dr. Dryer was born January 25, 1866, in Dellona, Sauk county. After having taught school a number of years, he began the study of medicine, graduating in 1901. For two years he was associated with Dr. Lewis Sherman in Milwaukee, but, his health declining, he sought relief in other climates. Although temporary improvement set in, he gradually failed, and returned home, dying at his old homestead.

Dr. Dryer was twice elected president of the alumni association of the Milwaukee Medical College.

CORRESPONDENCE

To the Editor Wisconsin Medical Journal.

Dear Sir:—When I came to Milwaukee in 1884, direct from Kaposi's clinic in Vienna, fully prepared to treat venereal diseases, I found these diseases limited and under the control of an old practitioner. Now, after 20 years, they have spread to such an extent, that even the colored race has been called upon to furnish specialists to treat them.

It is a fact, which there is no object in trying to conceal, that strangers are generally shown the town in this manner—they first take a visit to a brewery, and in the small hours of night wind up with a visit along the line in the red light district.

Milwaukee has lately been advertised as a convention city. It therefore is our duty to do everything to protect the visitors. We have to prevent Milwaukee from being a source of infection of venereal diseases.

Syphilis is not an individual disease. As we all well know, tuberculosis finds a fertile soil in syphilitic subjects. Prevention of syphilis is at the same time protection against tuberculosis. Insanity is increasing, and we all know that whiskey finds easy victims in syphilitics. Therefore, when we do everything to invite people to come here, we have to do everything to protect their health. But how can it be done? That is the question, and a very intricate one. The sentiment about vice, a free country, everybody to look out for himself, does not stand up against our duty as guardians of the public health. We have to treat conditions as they are and not as they ought to be.

I would like the profession throughout the state to take up this question and discuss it, so that at the next State Medical Society meeting we could bring it up and have it fully prepared. I will only suggest a few things that would have to come under discussion: Licensed houses with compulsory examination of both sexes; a law preventing any but licensed physicians to treat venereal diseases with a duty to report all cases and their probable sources. A howl from druggists and irregulars will be heard, but that will scare nobody.

Judging from the experience of those who have been laboring with the tuberculosis problem, it is easy to understand that these suggestions will also meet with a bitter fight, but as these suggestions have found practical solution in European countries it is better to be defeated than to do nothing to prevent the spreading of a disease, which I am sure, all of us have seen bring damnation and misery to innocent women and children.

DR. JOH. DE BESCHE, *Milwaukee.*

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.		FOR FOUR YEARS.	
1st Dist., H. B. Sears,	Beaver Dam	7th Dist., W. T. Series,	Sparta
2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
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FOR THREE YEARS.		**FOR SIX YEARS.**	
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NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

REPORT OF PROGRESS.

Some weeks ago a circular letter was sent to a number of representative physicians in the state, asking for a frank statement of their opinion as to the practical working and success of the present plan of organization, with criticisms and suggestions as to what changes may profitably be made.

The replies have been very full and appreciative. They have also been remarkably unanimous by way of approval and are most gratifying in the liberal and progressive spirit they manifest. Extracts from some of these replies cannot fail to be interesting and instructive.

One writes: "I believe personal attainments should alone enter into the requirements of all medical organization, and that we have made a distinct advance in allowing the various 'schools' to enter our societies; in fact, that it will likely sound the death knell to 'schools'

in medicine. Quackery and patent medicine vendors should, of course, be fought and exposed. Let our examination test be thorough enough to exclude the incompetent, and the sooner the public forgets there are various schools in medicine, the better it will be for the profession.

I look for the day when the care for the health of the nation and the individual shall be given its just place, when the medical cabinet officer shall have great power, and when the organization of the profession will be so complete that, either by compulsion or by desire, every competent medical man will be in the societies.

Locally there has been a decided improvement both in the ethical and the scientific spirit. There is a growing feeling among all the members of the profession, that, in order to keep up with the rapid advance in medicine, good work must be done. The grade of men is improving steadily, and I am certain there is much better feeling among the members of the profession than there has been in years gone by."

Another says: "The subject is such a difficult one, and its many pitfalls have been so well averted by the present effective organization of the American Medical and Wisconsin State Societies, that it is almost impossible to suggest any improvements. The best cure for sectarian medicine is to absorb it. Take them in and treat them fairly. The present organization has been productive of great good in harmonizing factional difficulties, and, I believe, that while the present plan may be modified from time to time in minor details, the safe way is not to meddle with the fundamental principles of this organization by a series of intricate amendments."

Another writes: "I would include your first two points in one answer. Compulsory maintenance of County Societies can have only one justification—the enrollment of *all* physicians without regard to creed and with but little regard for professional standing. I would say that the strong reason for this is not the business reason—the trades-union reason, but to promote neighborly friendliness.

I am so strongly opposed to medical politics that I may not be an impartial judge of the merits of our present form of government. To the extent that it relieves the society from routine business, thus giving its whole time at the Annual Sessions to scientific work, I endorse it. To the extent that it entrusts its business, year after year, to substantially the same men, I do not endorse it, even admitting that long experience better fits them for their duties. I should prefer that delegates should not be eligible to more than one re-election, *i. e.* two terms. I would have the society officers elected by the whole

society, in the old way. It would restore the most important feature of the old democracy, so pleasing to the rank and file, and it would not disqualify any member, as does the present system."

Still another: "Sectarian medicine, I believe, should not have a part, as such, in our medical organization. Just as soon as a man is prepared to come in on the proper lines of medicine without qualifying phrases, and comes in honestly, intending to do what he promises and to live up to it, I think he should be received without further question.

In regard to the plan of government, I think it is as good as can be secured. The trouble here again is to make it effective by having enthusiastic, persistent work done by those in office. In educational and legislative matters the profession is not doing nearly what it could and should do. Here, I think, good organization should accomplish a great deal. The trouble is, we do not get at those things soon enough, or rather, far enough back. To illustrate—if there is some bill or matter we wish attended to in the next legislature, now and for the past three months is when we should be getting in our effective work. From the educational side we are not, as individuals or as a society, altruistic enough in our work. As individuals dealing with individuals or families, no class in the world is so altruistic as the medical profession, but in the broader field of the school and the community we are not doing the intelligent work we should. In this line too, I think, organization could do a very great deal, but it needs for this leaders, and to be a leader means not only enthusiasm but some leisure from a very busy practice and so some means independent of practice.

The grade of men entering the profession seems to me, after all, to be the kernel in the whole situation, and I believe organization and persistent agitation can accomplish much. It is absolutely necessary to obtain a higher standard, educationally and ethically, in this regard, if we are to secure the best results. Then too, I think there is rather a wide-spread evil at the present time tending to degrade the profession and lower its standard—I refer to the giving and taking of commissions, and this is done directly or indirectly by many men to-day who are preaching most strongly against it, even in the Councils of the National body."

While but few reports from the county societies have been received since the Annual Meeting, the indications are favorable as regards medical society matters. There have been 61 additions to the society

since the meeting. This brings the membership up to about 1,500. With proper effort on the part of the Councilors and county secretaries the membership can be increased at least 200 during the year. The only way is to persistently go after the indifferent and the careless. Do not be satisfied with sending one invitation, but send a dozen if necessary. Moreover, have something to offer as an inducement in the shape of regular meetings, with the program well worked up. At the very least insist on quarterly meetings, and, if possible, hold them every month. When it has been tried on its merits, the monthly meeting is a great success. Our Dane county monthly meetings, with an average attendance of 35 or 40, have already been of immense benefit to the profession as admitted by all. It has been found that all are interested in the discussions of practical subjects connected with the business end of the profession, such as the proper adjustment of fees on an equitable and equal basis—better methods of collection and a "dead beat" list—the question of commissions—insurance examinations—lodge practice—the maintenance of a medical library and reading room, and the like. These questions are not only of material and financial interest, but they are worthy of serious discussion on other grounds, and we should be prepared to stand together in regard to them.

So let us all—in every County in the State—fall in line. The fall and winter campaign is upon us. Let us prosecute it with all the vigor and enthusiasm that the importance of the cause demands.

C. S. S.

DUNN COUNTY MEDICAL SOCIETY

Instead of the regular monthly meeting at Menomonie, the Dunn County Medical Society held a picnic at Downsville, Tuesday, Sept. 18, for members and their wives, where we all enjoyed the generous hospitality of Dr. and Mrs. Denham. As the meeting was purely social there were no papers read. Everyone present was convinced of the value of such meetings which promote good fellowship and should be held oftener.

The regular monthly meeting of the Dunn County Medical Society was held at the Hotel Royal, Menomonie, Oct. 16th. Dr. Finstad presented a case of sudden pain in calf of legs followed by edema, which has persisted for over a year, without any lesion of heart or kidneys. Dr. L. L. Herriman read a paper on *Acute Ileo-Colitis* which nearly every one present discussed. Dr. Steves read a paper on *Appendicitis*, covering the subject very thoroughly; discussion on this paper was deferred until our next meeting.

Our District Councilor, Dr. Boothby, was present, and urged a large at-

tendance at the district meeting in Eau Claire, Nov. 22d. He then extended an invitation from the St. Croix County Society to a banquet with them Tuesday, December 18th.

It was decided that the November meeting be dispensed with on account of the district meeting. It was also decided that the December meeting be held on the second Tuesday, and that we accept the kind invitation of the St. Croix County Society with thanks.

The Menomonie druggists were guests of the Society for the remainder of the evening, at which a very interesting talk on the *Relation of Physician and Druggist* was given by Dr. Boothby, who said that all narcotics should be dispensed by the physician himself. "Who owns the prescription?" was the principal point of discussion.

F. E. BUTLER, M. D., *Secretary.*

GRANT COUNTY MEDICAL SOCIETY.

The fourth annual meeting of the Grant County Medical Society was held at Lancaster, Thursday, September 20, with thirteen members present. Through the courtesy of Judge E. B. Goodsell the meeting was held in the Probate Court room of the new court house.

The morning session was devoted to a discussion of *Obstetrics*, Drs. J. Godfrey, F. Blackburn, J. M. Lewis, and C. A. Critchlow taking part. At the afternoon session Dr. J. Oettiker of Platteville read a paper on *Diarrheas in Children* and Dr. C. A. Critchlow of Lancaster, one on *Anesthetics*. Both papers were followed by general discussion.

A circular letter was read by the Secretary, asking the attitude of this Society in reference to making examinations for "Old Line" Life Insurance Companies at the reduced rates. The sentiment of the Society was found to be unanimous in favor of the former price of $5.00.

The election of officers for the ensuing years resulted as follows: President, Dr. J. M. Lewis, Bloomington; vice-president, Dr. F. Blackburn, Beetown; secretary and treasurer, Dr. M. B. Glasier, Bloomington; delegate, Dr. F. S. Tuffley, Livingston; alternate delegate, Dr. G. C. Buck, Platteville; censor, Dr. C. A. Armstrong, Boscobel.

The next regular meeting will be at Platteville, Thursday, Dec. 13.

M. B. GLASIER, M. D., *Secretary.*

RESOLUTIONS OF KENOSHA COUNTY MEDICAL SOCIETY.

Since our last meeting we, in common with the entire community, have been greatly shocked by the sudden death of one of our members, Dr. W. R. Cheever.

Cut off without warning in the prime of manhood, when the experience of his professional work in past years was ripening the fruits of his labors and giving promise of greater usefulness in the future. We feel that the medical profession of this state has sustained a serious loss by his death.

We desire, also, to express our appreciation of his worth as a good citizen, whose public spirit, integrity of character and sincerity made him always ready to raise his voice in behalf of truth and justice.

Resolved, that a copy of this expression of our regard for Dr. Cheever

and our earnest sympathy for his bereaved wife and relatives in their great sorrow, be spread upon the records of the Kenosha County Medical Society, of which body he was president, and of the Kenosha County Medical Association, of which he was ex-president and treasurer, and that a copy be sent to Dr. Cheever's family.

WM. H. SAUNDERS, M. D.,
G. WINDESHEIM, M. D.,
P. M. JORGENSON, M. D.,
Committee.

LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society met in regular session on October 6th. Dr. G. W. Luick read a paper on *Medical Economics* full of practical points and timely. It was fully discussed by members present.

Resolutions on the loss by death of our member Dr. Alexander B. Newton of Bangor, were passed.

The subject of a regular fee bill came up for discussion and the society decided that the adoption of such an agreement would not be good policy, so we decided to take no action. The fee for Insurance Examination was also discussed but no action could be agreed upon.

The La Crosse County Medical Society held its regular monthly meeting on September 6, with a good attendance of members present.

Dr. John A. Ballard read a paper on *Typhoid Fever* which was well received and discussed by most of the members present.

C. H. MARQUARDT, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

(Meeting of Oct. 9, 1906.)

Dr. O. H. Foerster presented a case of extensive *seborrhoic eczema* of the face, scalp, and upper sternal region, with almost complete loss of hair, which is recovering under the use of resorcin. He also showed a girl of 18 years with a large *chancre on the upper lip.* Infection had probably occurred through an ordinary herpes labialis, and a drinking cup in a department store is supposed to have been the carrier of the infection. Dr. Foerster remarked upon the frequency of unrecognized extra-genital chancres and the dangers of the spread of the disease from this source.

Dr. A. J. Patek reported the results of the first week's trial of *medical inspection* in some of the public schools. A large number of minor transmissible diseases were found and a few more serious ones. The results would seem to fully demonstrate the desirability of making the examinations general and permanent.

Dr. S. W. French, under the title of *Boston Notes* gave the results of his observations during a month's stay in Boston at the time of the meeting of the American Medical Association.

Dr. E. W. Kellogg presented a paper entitled *Suggestions in Gallstone Surgery, with Report of five cases and exhibition of specimens.* In the discussion Drs. Shimonek, Reineking, Washburn, Nichols, Brooks, French, Walbridge and Willett took part.

H. E. DEARHOLT, M. D., *Secretary.*

FOX RIVER VALLEY MEDICAL SOCIETY.

The regular quarterly meeting of the Fox River Valley Medical Society was held at the city hall, Oshkosh, Oct 16th. The meeting was called to order by President R. E. Minahan of Green Bay with 34 members and visitors present.

Dr. C. A. Harper, Secretary of the State Board of Health, read by special invitation a paper on *The Relation of Physicians to Vital Statistics and Sanitation.* He made an urgent plea for the co-operation of the physicians of the state in correct registration of causes of death, prompt reporting of births, accidents, and contagious diseases, and careful disinfection after tuberculosis, etc. Following his paper, Dr. Harper answered numerous questions relative to sanitary matters and contagious diseases. By unanimous vote Dr. Harper was ordered enrolled as an honorary member of the Society.

Dr. M. E. Corbett of Oshkosh read an excellent paper on *Surgery of the Biliary Tract.* The discussion was opened by Dr. N. P. Mills of Appleton and was participated in by a dozen or more of the members. Dr. Beck of Green Bay not being able to be present, his paper on *The Present Status of X-Rays in Diagnosis and Treatment* was presented by Dr. T. J. Oliver of Green Bay. Discussion opened by Drs. Steele of Oshkosh and Sandborn of Appleton.

The annual meeting and banquet of the Society will be held in Green Bay, Jan. 15, 1907.

CHESTER M. ECHOLS, M. D., *Secretary.*

BOOK REVIEWS.

Pathologic Physiology.—PROF. LUDOLF KREHL, Director of the Internal Clinic in the University of Strassburg. A textbook for students and physicians. 4th, new edition. F. C. W. Vogel, Leipzig, 1906. 15M. ($3.75).

Pathologic physiology aims to contribute to the understanding of the vital processes in disease. In the same manner in which physiology treats of the normal functions of the organs of the body, pathologic physiology discusses the behavior of these organs under pathologic conditions. The object of the clinic is to familiarize the student with the processes going on in diseased organisms, and to enable him through their knowledge to develop a useful activity at the bedside. Rational diagnostics consider the symptoms as an expression of disturbed function, and, with sufficient knowledge of physiology and theoretical pathology, may directly induce seat and nature of a disease.

After these and other introductory remarks the author attempts, as the purpose of this book, to arouse the interest of students and physicians for the theory of pathological processes. How well he succeeded and how he actually supplied a long felt want is externally proven by the appearance of four revised editions in the course of a few years. The subject matter is considered under pathologic physiology of circulation, blood, infection and immunity, respiration, digestion, nutrition and metabolism, quantitative disturbances of the metabolism of carbohydrates (including glycosuria and dia-

betes), gout, fever, secretion of urine, uropoietic orgahs, and nervous system.

The book is written in a clear, fascinating style, giving critical exposés of the modern views, with numerous references to literature. Wherever our knowledge is insufficient it is expressly stated, at the same time hints and devices are given for the arrangements of new experiments and how the solution of problems might be approached. We especially call attention to the excellent chapter on infection and immunity, entirely remodeled with the assistance of Prof. E. Levy. Reading such a superior book will guard against routinism, and, besides conveying an abundance of most useful knowledge and stimulation, will supply hours of delightful enjoyment.—(*C. Zimmermann.*)

Diseases of the Nose and Nasopharynx.—CARL ZARNIKO, Hamburg. Die Krankheiten der Nase und des Nasenrachens, mit besonderer Berueeksichtigung der rhinologischen Propaedeutik. 2nd edition. Second part, pp. 260 to 740. S. Karger, Berlin, 1905. M14.95 ($3.75).

The first part of this admirable work appeared in 1902 and contains the general pathology and symptomatology. In the second part the author presents the special pathology and therapeutics in concise but exhaustive clinical pictures from his own large experience and a critical, very complete utilization of the literature. Different sizes of type and headings on the margins, designating the contents of the single paragraphs, greatly facilitate the orientation in the various subjects. Symptoms, course of the diseases, pathological anatomy, bacteriology, pathogenesis and its various theories, and treatment, receive equal consideration, and the different methods of operations are minutely described.

The special chapters deal with congenital anomalies and deformities, external traumatisms of the nose and their consequences for the interior, diseases of the nasal entrance, acute inflammations, chronic catarrh, ozena, infectious granulomas (tuberculosis, syphilis, malleus, lepra, scleroma), circumscribed inflammations (rhinitis sicca, perforating ulcer of the septum, perichondritis), epistaxis, foreign bodies and rhinoliths, living organisms in the nose (bacteria, mycoses, worms, insects), tumors and diseases of the pharyngeal tonsil.

The section on neuroses, embracing the disturbances of the sense of smell and of sensibility, and on reflex neuroses, is very elaborate and interesting.

Over 100 pages are devoted to a most thorough and up-to-date treatise on the diseases of the accessory sinuses, their differential diagnoses, and their relations to the neighboring cavities (cranial and orbit), with detailed descriptions of the methods of operations, and critical comparison of their indications and merits, showing the complete familiarity of the author with this intricate subject.

Everywhere the salient points in diagnosis and treatment are emphasized and the whole book is written in a clear, most fascinating style, so that whichever chapter one commences, one feels tempted to read through. It will be sure of the highest appreciation.—(*C. Zimmermann.*)

MISCELLANY.

Malaria Becomes a Plague in Greece.—The excessive prevalence of malaria in Greece is engaging the attention of English physicists. It is said to be checking the development of rural life, and is a very serious thing for the nation. The statistics of the country show that out of a population of 2,500,000 there were 250,000 cases of malaria annually, and the deaths were about 1,760. Last year the number of cases increased to 960,000, and the deaths to 5,916. Professor Savas, of the University of Athens, and physician to King George, is initiating a movement to deal with the plague.

The Medical Host.—A French paper says that there are 228,234 medical men in the world. Of these there are in Europe 162,333, distributed as follows: In England, 34,967; in Germany, 22,518; in Russia, 21,489; in France, 20,348, and in Italy, 18,245. In England the proportion of doctors is 78 to 100,000 of the population. In France it is 51, and in Turkey 18. In Brussels it is 241, in Madrid 209, in Budapest 198, in Christiania 181, in Vienna 140, in Berlin 132, in London 128, in Athens 123, and in Paris 111.—(*Med. Record.*)

Glasgow children's eyesight is reported quite defective by the official investigating surgeons. Out of 52,493 children tested 18,565 were below the standard for vision, while out of those defectives 11,209 had ocular defects. A request is made for annual inspection and closer attention to school children's eyes.

At a meeting of the American Surgical Trade Association held in Philadelphia, June, 1906, it was resolved that after January 1, 1907, the trade adopt the French scale for all catheters, bougies and sounds.

Nine Millions for Tuberculosis.—Under the workmen's sickness insurance law about $9,500,000 was spent in Germany in the treatment of tuberculous patients in the years 1901 to 1905.

Failures of Chicago Graduates.—Percentage of failures before State Medical Examining Boards throughout the United States during 1905, as per report published in the Journal of the American Medical Association, August 25, 1906.

Chicago Colleges established five years or more. Per cent. failed.

1. National Medical University..4.2
2. Northwestern Medical School..5.1
3. Rush Medical College (University of Chicago).....8.4
4. College of Physicians and Surgeons 8.7
5. Harvey Medical College.....11.1
6. American Medical Missionary College 15.0
7. Hahnemann Medical College.16.7
8. Hering Medical College.....17.4
9. American College of Medicine and Surgery 17.6
10. Bennett Medical College (Eclectic) 20.0
11. Jenner Medical College.....28.6
12. Illinois Medical College.....28.8
13. Chicago Homeopathic College 41.2
14. College of Medicine and Surgery 53.3

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ORIGINAL ARTICLES.

A NEW METHOD FOR THE REDUCTION OF FRACTURES OF THE LOWER EXTREMITY.*

BY CHARLES H. LEMON, M. D.

MILWAUKEE.

Fractures and dislocations were the most complete chapters of the Hippocratic Surgery, yet of methods prior to the time of Sir Astley Cooper, little may be learned from the treatment of fractures that would be useful to-day. A student of John Hunter he was the most distinguished surgeon of his time. In his work on Fractures and Dislocations, published in 1822, he has given us the best thought of his period. It is not to be wondered at that the dictum of such an intellect should be accepted without question by successive generations even though in some particulars essentially wrong.

The division of fractures of the femoral neck into intracapsular and extracapsular fractures by Astley Cooper, and his oft repeated assertion that the intracapsular fracture was incapable of bony repair, is a fallacy that was sharply controverted in his own day. After a careful review of his writings I am unable to verify the statement of Stimson (Fractures and Dislocations, p. 306) that he subsequently abandoned it. The distinction he made was based upon the anatomic fact, that the vascular supply of the femoral head comes principally from vessels that pass to the head of the bone in the thick periosteum of the neck, and the assumption, since proven fallacious, that this periosteum is totally severed and the circulation completely arrested in intracapsular fractures. In Cooper's lectures, published in 1831, ten years before his death, he says: "With respect to the mode in which these

*Read before the 60th Annual Meeting of the State Medical Society of Wisconsin, Milwaukee, June 27, 1906.

fractures of the neck of the thigh bone within the capsular ligament unite, much difference of opinion exists; it is asserted by some surgeons, that these fractures unite like those occurring in the other bones of the body; but from the numerous dissections which I have had an opportunity of performing in these cases, I firmly believe that, as a general rule, the transverse fracture of the cervix within the capsule does not unite by bone; such is the opinion I have delivered in my lectures these thirty years, and which has been from year to year strengthened by further observations and fresh dissection. In all the examinations which I have made of these cases, I have seen but one in which a bony union had followed a transverse fracture of the neck of the bone within the capsular ligament. I do not however mean to deny the possibility of a bony union, or to maintain that it cannot take place, but it is an exceedingly rare circumstance. The bone may be broken without the fractured ends being separated from each other, or without any lacerations of its periosteum, or the reflected ligament which covers its neck; and again, the fracture may be in part within, and in part without the capsular ligament; under this latter circumstance I well know that an ossific union might be produced; and I have had the opportunity of seeing more than one."

When we recall the difficulty that is frequently encountered in making a diagnosis in suspected fracture of the femoral neck; when we in retrospect recall the cases of injury to the hip joint which we have treated by simple immobilization under the mistaken idea that they were cases of contusion or synovitis of the joint, and recall the long invalidism which followed and the definite amount of shortening that took place, can we in a known case of fracture of the neck where the signs are unmistakable, afford to split hairs as to whether or not the fracture lies wholly within the capsular ligament? Is there any definite clinical sign which will inform us of this fact; or, in the light of the evidence of a sufficient number of specimens of bony union following fracture within the capsular ligament which are extant, should we, as progressive surgeons, follow blindly the teachings of a great man, who was equally greatly mistaken in this important matter, and deny to those who entrust their lives to us, the advantage of a permanent fixation of the hip joint, in all fractures of the cervical neck, unless the accompanying factors of shock and its reaction are such as to insure a speedily fatal result with or without such treatment.

The difficulty heretofore has been in the application of the fixed plaster-of-paris dressing, that no safe, comfortable means has been supplied for its application. We have all seen aged patients faint

under the old vertical suspension for the application of the plaster spica. The plaster bandages themselves in most instances were of such inferior quality that the cast became useless and had to be removed. It is little wonder that with no method of temporary fixation of the limb except by an assistant, that the plaster spica was abandoned in the treatment of fractures of the hip joint and stigmatized as unsafe and useless by even expert practitioners, in the treatment of fractures of the femur.

I would not give the impression that all my cases have been followed by ideal results. I have had the experience common to us all and have been forced to operate to correct deformities and effect union. In fractures of the upper third of the thigh the difficulty of defining the character of the fracture, buried deeply in muscular tissues and further obscured by extensive swelling of the soft parts, has caused me great anxiety. In a recent case in a child of five and a half years, the tilting of the upper fragment—while recognized at the time of the primary dressing—was not corrected with the first dressing although flexion of the thigh on the abdomen was resorted to. Without the fixed plaster dressing which made it possible to transport this case to an X-ray laboratory, subsequently operation would have been required. Three things are necessary to an ideal result in this class of cases; a skiagraph after the fracture is reduced, a thorough immoblization with flexion of the thigh on the abdomen, and complete reduction.

In fractures of the thigh, other than of the neck and above the condyles, I do not believe successful reduction can always be accomplished with the use of Plaster-of-Paris alone. My experience is that coaptation splints, perferably of wood, are necessary.

After the primary swelling has subsided, the contraction of the muscles having been temporarily prevented by suitable extension, splints of wood can be used for coapting the fragments by pressure on the muscles which surround the fragments. A plaster cast embracing the pelvis and entire leg can then be applied over these and an X-ray taken through the cast and splints.

In fractures of the thigh where the fragments have been displaced by the initial force causing the fracture, tearing the attached muscles, how many chances of displacement there are under Buck's extension or the Hodgen splint, for rotation of the upper fragment, caused by the settling of the body towards the injured side, as well as by the necessary handling of the patient in evacuating the alimentary canal. How difficult it is to maintain firm equable pressure by bandages that are constantly yielding to pressure.

In fractures of the bones of the leg, the plaster dressing finds its easiest application. In fractures of the lower third where we meet the angular pull of the tendo achillis, unless we have definite extension, more than can be usually furnished by human agency, the X-ray will give us a rude awakening.

In the treatment of fractures of the lower extremity, we are dealing with lesions which affect the life of a patient, less from the direct injury itself, than the remote consequences incident to the line of treatment adopted. Many of these fractures occurring in the aged give a mortality ratio out of all proportion to the severity of the fracture itself. In recognition of this fact, many surgeons of the past and present, following Sir Astley Cooper, and fearing the depressing result of long confinement to bed by use of splints or traction apparatus, made no attempt to reduce or treat by immovable dressings, fractures of the hip joint. Many of these fracture cases in persons past middle life, under this lack of treatment, lived, remaining dependent cripples, and the professional mind has come to regard hip fractures in the aged as incapable of bony union, and therefore no attempt at fixation is made in a large percentage of cases.

The use of immovable apparatus in the treatment of fractures of the extremities (and by this we mean the application of materials which harden after application and assume more or less accurately the shape of the broken extremity) was not known in Europe until the close of Cooper's life.

"Plaster-of-Paris, originally employed by the Moors of Spain, was first tried in Europe, as a scientific dressing in the treatment of fractures, by Prof. Kluge of Berlin in 1829" (Gross, System of Surgery, 1866).

The older surgeons will recall the introduction of Plaster-of-Paris for fixation of fractures in this country about the time of the close of the civil war. The stimulus undoubtedly given the study of fractures by the enormous experience gained in the war, gave us the well known devices of Gurdon Buck, Hamilton and Hodgen. In the period from 1865 to 1880, this subject received diligent investigation by the Masters of American and English Surgery. We recall in this connection, the names of Hamilton, Bigelow, Buck, Levis, Sands, S. D. Gross, Agnew, Moses Gunn among American surgeons, and of Jas. Spence, Cooper, Foster, and Ericksen among English surgeons.

The latitude made possible by the method used to determine the relative length of the thighs, given by Gross, is sufficient to account for the conflicting claims made for the superiority of one or the other of the various devices suggested for fixation. Imagine us to-day deter-

mining the length of two thighs by measuring carefully from the "center of the umbilicus to the inferior and inner border of each patella" as practiced by Gross and his contemporaries.

The following excerpts from the literature may prove instructive and interesting.

"In 1834, the Baron Seutin of Brussels, announced the treatment of fractures of the extremity by the use of starch as a comfortable and time saving expedient. When this method of treatment was first announced it was almost universally regarded with suspicion and even now, after the numerous trials that have been made of it in different parts of the world, it is questionable whether it is receiving the attention it merits. The accumulated experience of the profession during the last twenty years is sufficient to convince any one, even the most skeptical, of the safety and utility of this mode of dressing fractured limbs" (Gross, System of Surgery, 1866).

Packard, editing Holmes System of Surgery, 1881, says: "In this country the treatment of fractures of the thigh may very generally be included under one of three methods, *viz.*, the use of Buck's apparatus, of Hodgen's modification of Smith's anterior splint, and of Plaster-of-Paris.

Erichsen (Science and Art of Surgery, edited by Ashhurst, 1869). "It is only of later years that the full value of the starched bandage has been recognized by surgeons, chiefly through the practice and writings of Baron Seutin."

"The advantage of the starched bandage in the treatment of fractures, as well as in many other injuries and diseases, consists in its taking the shape of the limb accurately and readily, and maintaining it by its solidity; in its being light, inexpensive, and easily applied, with materials that are always at hand. It secures complete immobility of the limb in the position in which it dries.

"The joints in the neighborhood of the fractured bone are securely fixed, and the perfect adaptation or moulding of the apparatus to the inequalities of the limb prevents all movement. Thus it became a powerful and efficient extending apparatus, maintaining accurately not only the length but the normal curves of the limb."

"During many years I have followed Seutin's plan in some hundreds of fractures of all kinds, putting the limb up in the starched apparatus *immediately* after the reduction of the fracture, and have found the practice an extremely successful one, even in fractures of the thigh."

"From no other means of treatment have I seen such satisfactory results in cases of fractured thigh, as from the starched apparatus;

patients having frequently been cured without any shortening whatever, with the preservation of the natural curve of the bone, and without confinement to bed after the first week."

Scudder (The Treatment of Fractures, Fifth edition, 1905) devotes a chapter to the ambulatory treatment of fractures. "By the ambulatory treatment of fractures of the lower extremity is understood a method of treatment that permits the immediate and continued use of the injured limb as a means of locomotion."

"Medical literature contains many references to this method. It has been in use for some ten years. It has not met with general acceptance even among Hospital surgeons. It is a radical method and open to criticism. It contains, however, several important suggestions. It will prove instructive to follow the adoption of this method by its advocates and to discover if possible what there is in it of permanent value."

To what extreme surgeons have gone to obtain satisfactory results in the treatment of fractures may be learned by an article in the *Jour. A. M. A.*, Jan. 13, 1906, on the Operative Treatment of Fractures, by Jas. Kelley, M. D.

After giving some reasons for converting closed into open fractures he says: "Of the various methods given above there is no one which can be used *without some external retentive apparatus,* as splints or Plaster-of-Paris dressings." The article is concluded with a summary of twenty-two cases and fifteen skiagraphs showing results which in my opinion could not be worse under almost any form of treatment. These skiagraphs, instead of arguing in favor of operative treatment in closed fractures, argue against the method, and further illustrate the reason why Plaster-of-Paris, as a fixation dressing, was abandoned at the time of the introduction of the X-ray.

In an admirable paper entitled "Functionally Good Results in the Treatment of Fractures as Viewed by Skiagraph and Photograph" by B. N. Torrey, M. D., (*Jour. A. M. A.*, June 2, 1900), the average results, obtained in the treatment of fractures of the extremities by various methods, is given in a series of photographs, and the following conclusions are stated:

1. That both the surgeon and the public have believed they were attaining more perfect anatomic results than it is possible to get in the great majority of cases.
2. That the surgeon should realize and the public be taught that the getting of a good functional result without deformity, as viewed by the unaided senses, constitutes the practically ideal, and that the

X-ray cosmetics is a refinement beyond the reasonable hopes of this day and age.

3. That we must not expect an ideal result in oblique or any other fracture where the fragments have been separated.

4. That it would be impossible to correctly coaptate a fractured bone buried in muscular tissues and recognize it, without the use of a fluoroscope.

5. That very few, if any, oblique fractures of the larger bones of the leg or arm are treated without shortening and other deformities.

6. That the public has the impression that all fractures are transverse and the surgeon should always procure an end-to-end approximation.

7. That angular deformities alone can be corrected or prevented by lateral splints.

8. That the only way we can be sure of a correct reduction would be under the fluoroscope, with an anesthetic and superextension, or by incision, with mechanical fixation of the fragments. The use of the fluoroscope would be impossible in many cases, and the indiscriminate practice of incision would do more harm than good.

9. That oblique fracture of the tibia and fibula when both bones are broken, is one of the hardest of fractures to treat without marked deformity—especially if it be compound or produced by indirect violence—from the fact that there is not room for traction; the stronger muscles are located on one side of the bones; there is an element of torsion in the force that produced the fracture.

10. The extension would give us less shortening, less deformity and better results in fractures of the long bones; but too much extension and too long continued, would interfere with the physiologic condition of the joints, while stricture of the tissue between the joints, sufficient for traction, would interfere with the circulation and might produce blister, ulceration and non-union.

11. That the weight of the limb, such as would result from the too early use after fracture of the leg, would increase or might produce deformity, in all cases except those having end-to-end approximation, and that without perceptible inconvenience or pain to the patient.

12. That a skiagraph picture may exaggerate a deformity, but it

13. That an X-ray picture, if interpreted according to our former notion, or the ideas now held by the general public, would be unjustly exacting for legal purposes.

14. That we may expect a mechanical device for fixation independent of muscular tissues; whether it is foreshadowed by Dr. Parkhill's clamps, the peg, screw or some other contrivance, no one can tell.

15. That every up-to-date surgeon should have access to or own an X-ray machine—a portable one would be very handy.

16. That the fractures viewed and presented in illustrating this paper, fairly present the average results obtained by the past and present methods of treating fractures.

17. That the application of the X-ray to surgery, while it presents many advantages, may also bring annoyance; but since it is here

and here to stay, it behooves us to make a careful study of its findings in order that while we enjoy the advantages, we may avoid the injury that might arise from its misapplication, and prevent its being made to bear false witness through misinterpretation of its findings."

The test of any method for the treatment of fractures is a result, showing in a series of cases, the lowest mortality, the least amount of shortening, the promptest recovery, the most perfect functional result, with the least amount of manipulation on the part of the surgeon.

In a resumé, such as a paper of this character must make, a mere allusion to bygone practices is all that can be made. All surgeons have felt the shortcomings of the present methods of reducing fractures of the lower extremity. To the orthopedic surgeons is due the credit of bringing into successful use the Plaster-of-Paris bandage.

For many years attempts have been made to invent special apparatus for the treatment of special fractures. The difficulty, however, is that no two fractures are exactly alike, nor are limbs even relatively the same in length or circumference or contour. Certain fractures have been followed by fatal or greatly deforming results, notably those occurring at the neck and the upper third of the femur, the supracondylar, and fractures of both bones at the lower third of the leg. Anyone who has treated one or all of the fractures knows the difficulties which must be encountered. All the operations suggested for the treatment of fractures of the leg and thigh were designed to overcome one or the other difficulties encountered at the points named.

The great difficulty in the use of the Plaster-of-Paris bandage has been the uncertainty that followed its application, that the fragments of bone *remained as approximated by the surgeon* when he committed the care of the extension to an assistant.

In no other operation is the surgeon so absolutely at the mercy of his assistants. To this fact chiefly I attribute the general abandonment of Plaster-of-Paris by American surgeons at or about the period when the X-ray machine made its appearance. Results that were functionally good, gave such damaging X-ray shadowgraphs, that it is reasonable to infer that surgeons generally preferred the use of the Hodgen or Hamilton splint, or Buck's extension, by the use of which the leg could be examined daily during the process of repair. No *human* agency in my experience can keep up the necessary extension in a fracture of the bones of the leg or thigh until a plaster cast has been applied. Unless the extension is kept up uniformly, it is impossible to maintain the fragments in relative approximation, and shortening, the result of overriding, is certain to follow.

As the bony skeleton is the frame-work upon which the soft parts are erected, and as the integrity of the muscles depends upon their restoration to approximately their normal length after fracture of one of the long bones, the indication in such a fracture is to supply a mechanical, external substitute for the broken internal support. It is difficult to conceive of anything in the line of a mechanical contrivance, which may be applied to the external surface of the leg or thigh, that can so effectually afford a temporary support, as a well moulded, thoroughly applied Plaster-of-Paris cast. It fulfills the function of the long bones, in opposing the action of the muscles, by keeping up unyielding extension, the cast grasping the bony prominences at either end of the long bones which enlarge to form the joints.

The statement of Erichsen, that he treated hundreds of fractures by this method, with slight resultant deformity, would appear to many of us to-day like the blatant claims of a quack. His reputation however was so well established that we dare not challenge his statement. Erichsen, following the Baron Seutin, established a rule of practice which it is remarkable was ever abandoned.

The recent return to the use of the plaster cast by the Germans and the so-called ambulatory treatment suggested by Dollinger, the practice of which is sharply criticised in an otherwise admirable work on the treatment of fractures, is the result of a growing conviction that other methods of treatment than the Plaster-of-Paris dressing are surgically defective. The enforced confinement to bed under other methods has so many essential defects, that any method which does away with this necessity should be welcomed.

The question as to whether by the use of the plaster cast the ultimate healing is hastened, is secondary, and subordinate to the question as to whether or not the result obtained is superior to that made possible by other methods. Any method which lessens the mortality in a given class of fractures, such as fractures of the femoral neck, a large percentage of which occur in the aged and feeble, is most desirable.

It is a matter of wonderment that any one should advocate operation in closed fractures to be followed almost invariably by the use of the plaster cast, when the same results or better can be obtained by the use of the plaster cast alone, with no risk from infection. There are cases where muscle and other soft structures interpose themselves between the fractured ends of bone making reduction and union of the fracture impossible without operation. These however are the exception, not the rule. There is a large class of closed fractures in which the bones are comminuted. If these are treated by the open method

they are almost certain to be followed by sepsis and amputation. We forget sometimes in thinking of these fractures that the so-called inflammatory reaction following closed fractures is not an inflammatory process at all but a regenerative process.

In this class of cases no general rule can be laid down as to when a permanent dressing shall be applied. The conditions governing the individual case and the experience and address of the surgeon must decide this.

The application of the plaster cast is not the easiest task that confronts the surgeon. Eliminating the matter of extension, the application of the plaster bandage requires skill born of experience. When properly applied, however, it relieves pain and discomfort, it affords freedom of movement to a marked degree, it permits easy evacuation of the alimentary canal, it enables the patient to move about on crutches, to be seated the greater part of the day in a comfortable chair, it permits applications to be made to the skin of the back for the prevention of bed sores, even in the insane, and it permits of transportation to a laboratory, where an X-ray of the fracture may be made through the cast.

When a Plaster-of-Paris cast is properly applied displacement of the fragments is impossible. This may seem exaggeration but the skiagraphs prove that it is true. I have had patients both with fracture of the femoral neck and fracture of the leg fall while in the cast without in the least disturbing the relation of the fragments. In a fracture at the lower third of the leg, treated by Plaster-of-Paris extension, after the cast had been removed and about ten weeks after the reception of the fracture, the patient fell down stairs and broke his right arm without re-fracturing or in any way injuring the recently fractured leg. I do not assert that the use of the plaster cast hastens the reparative process. I do assert, however, that the mortality is lower, the invalidism much less, and the ultimate results are better than where it is not used. In an impacted fracture of the femoral neck in a man of thirty-five, it was possible five days after the application of the cast to introduce hinges at the knee joint and send the man home. He was able after the first week to get up daily unassisted and dress himself, and after a few weeks he walked about the house on his cast without the use of crutches. In a man seventy-seven years old with an impacted fracture of the femoral neck, complicated by traumatic delirium of an extreme type persisting for seven weeks, it was possible daily to get the patient out of bed into a chair, and it is certain that without the use of the cast by means of which bony union was effected it would have been impossible to restrain him by any ap-

paratus that would sufficiently immobilize the fractured bone. In a woman of sixty-two, with a delicate skin, in whom bed sores rapidly appeared under the use of Buck's extension, the bed sores disappeared and bony union occurred under a Plaster-of-Paris cast skillfully applied. In seven cases of fracture of the femoral neck which came under my observation since Sept. 15, 1905, varying in ages from thirty-five to seventy-seven years, all of which were treated by the Plaster-of-Paris cast, there have been no fatalities. Six have reached recovery with bony union while the seventh is too recent to state the result.

The usefulness of starch and Plaster-of-Paris as a permanent effective dressing in fractures of the lower extremity was in my opinion fully established fifty years ago by Seutin and Erichsen. The difficulty of its application without the use of suitable apparatus to insure definite temporary extension in fractures of the leg and thigh, other than impacted fractures of the hip joint, prevented its continuing in popularity.

The evolution of an extension apparatus for this purpose began with Bruns of Tubingen. He devised a primitive apparatus which he used for applying the spica dressing in disease of the hip joint. Lorenz of Vienna and his cousin, a mechanic, improved on this crude apparatus and produced the one known under the name "Lorenz Hip Redresseur." The possibility of constructing a machine adapted to the broader field of fractures of the lower extremity presented itself to me, and when I suggested the thought to Dr. Mueller, the former assistant of Dr. Lorenz, now in Chicago, I found that he also had conceived such an idea but had been unable to carry it into effect. The Lorenz machine was a long step in the right direction. It afforded the possibility of mechanically making extension and temporary fixation in orthopedic procedures until a cast could be applied, but it distinctly lacked the flexibility necessary in the treatment of fractures of the lower extremity. In short, while embracing definite ideas of extension and fixation as suggested by Bruns, it was limited in its application and its defects were recognized by those who designed it.

The broad liberality of Mr. John I. Beggs, President and General Manager of the Milwaukee Electric Railway and Light Company, who issued a shop order at my request for the construction of an extension apparatus in accordance with designs to be approved by me, made possible the present effective apparatus. To Dr. Frederick Mueller of Chicago, whose valuable suggestions contributed to make the initial design a success; to Mr. Louis Shaw, expert pattern maker, and Mr. S. George Hubbell, Assistant Superintendent of Rolling Stock of The Milwaukee Electric Railway and Light Company, who

under my direction devised the mechanical features that made the apparatus at once a success, a large amount of credit is due.

Features unknown to any former apparatus, making its use at once flexible and definite and certain have been incorporated in this apparatus. Speaking of it in moderate terms it has proven from the very beginning a most useful adjunct in the treatment of fractures of the lower extremity, supplanting as it does human agency, other than the skilled work of the surgeon himself, eliminating for all time the doubtful work of the faithful assistant, whose physical limitations alone have been responsible for much of the bad bone surgery of ourselves and our predecessors. That it is not perfect we are fully aware, that it can be improved upon we do not question. That it may prove a boon to surgeons, in preventing suits for mal-practice, in lessening the mortality in fractures of the thigh in the aged and feeble, by affording a safe, comfortable and reliable means of applying the fixed Plaster-of-Paris dressing, we earnestly hope. Its development was not the result of an accident. Its application is so comparatively simple that the only wonder is it was not developed years ago.

In acknowledgement of the valuable suggestions made by Professor Mueller, who assisted in the construction of the Lorenz apparatus also, I have named this apparatus the "Lemon-Mueller Fracture Apparatus." The machine was entirely designed and built in the shops of The Milwaukee Electric Railway and Light Company, under my personal supervision. I therefore assume all responsibility for any defects which may appear.

The apparatus consists of a main or body frame which rests upon a table to the edge of which it is clamped. Upon this frame is carried a back rest and pelvic support. At either side of the end nearest the edge of the table is a horizontal disc, and attached to it by a short piece of metal, a vertical disc. To the vertical disc is attached a horizontal extension rod. Sliding on these two extension rods, one on either rod, are two vertical supports which carry the adjusting screw and foot piece, to which each foot of the patient is separately fastened. The proximal ends of the rods being attached to the body frame by a combined vertical and horizontal disc gives to the proximal end of the extension rods a universal joint movement. By means of this movement, the foot of the patient which is fastened to the support carried on the distal end of the extension rod, is capable of being carried in any direction.

In order to adjust a fractured bone of the lower extremity, the patient is made to lie on the machine. The pelvis rests upon the pelvic support plate and the pubic arch is brought in contact with the upright

post in front of this plate. The shoulders rest upon the shoulder support keeping the body in a straight line. The head rests upon a pillow which in turn is laid upon the box in which the apparatus is transported. Each foot is now fastened securely by a gaiter or bandages to the foot piece of the leg support. With the patient on the machine in this position, it is now possible to make extension of both legs by means of the adjusting screw attached to the foot piece. The pull is from one foot piece around the post in front of the pelvic support plate, against which the pubic arch presses, to the other foot. Accurate measurements may be made to determine when the two legs are symmetrical, and by increasing the pull on the fractured side the fractured leg may be extended to its normal length.

By means of the discs at the proximal ends of the extension rods the leg may be elevated or depressed, adducted or abducted. It will be seen that, by means of this apparatus, and with the patient as a rule under an anesthetic, intelligent investigation of the seat of the fracture may be made and the distal fragment adjusted to the position in which it comes in line with the proximal fragment. When the adjustment is made, further extension by means of the adjusting screw may be added until, by accurate measurement, no overriding of the fragments is possible. The fractured leg then remains where the surgeon put it. With the leg held mechanically rigid, and the patient quietly sleeping under the anesthetic, the fixed Plaster-of-Paris dressing is applied. The only contingency is that reliable, quickly drying Plaster-of-Paris bandages must be used. For this purpose the best crinoline cloth is used with dental plaster. These bandages should be freshly made, moistened in lukewarm water and well squeezed out. The only difficulty I have experienced in the use of the apparatus has been where poor plaster materials were used. In two cases, both fractures of the femur, while complete reduction was not effected, owing to the contraction of the muscles on the slow drying plaster, after the patient was removed from the apparatus, bony union resulted.

The apparatus can be relied upon to hold the fragments where you place them, and if at the time of reduction you have access to the fluoroscope, with this additional aid it will be possible to attain results, I believe, heretofore altogether impossible.

STATE PROVISION FOR EPILEPTICS.*

BY WM. F. WEGGE, M. D.

MILWAUKEE.

During the past few years the medical profession of this state has very properly interested itself in the public care of certain classes of patients who cannot well be cared for to any great extent by private enterprise, and the nature of whose ailments is such as to make it particularly the interest of the public at large to have them properly treated and cared for.

As an example: through its efforts there is now being built the state sanitarium for those afflicted with tuberculosis. After this is completed the matter of providing for another class of patients, the epileptics, will no doubt receive consideration, and since the need of public or state provision for these is pretty generally conceded by the profession throughout the world, and by many of the intelligent laity as well, it is only a question of a short time before we shall be called upon for advice as to the manner in which provision shall be made. It is for this reason that I have chosen this subject for my paper this evening.

I do not intend to treat it very exhaustively, my purpose being rather to provoke its discussion by the gentlemen who have kindly consented to do so, and who are more competent than I to do it justice, so that we may be prepared to answer questions intelligently when called upon.

As you all know, in this state at the present time only insane epileptics are taken care of in our hospitals and asylums for the insane, where they are a disturbing element, and where their presence is harmful to those suffering from other and often more hopeful forms of mental disease.

In my report of the operations of the Northern Hospital for Insane in 1892, I recommended to the Board of Control that a colony for epileptics be established, and I repeated this recommendation in my report of 1894. The Board was impressed with the necessity of making some provision for the epileptics and the matter was frequently discussed at their regular visits at our institution.

The plan that appeared to meet with greatest favor was one proposed by me, and which was based upon conclusions formed from

*Read before the Milwaukee Medical Society, October 23, 1906.

reports gathered and correspondence had with men then engaged in institutional work, and others interested in the subject.

Briefly, the plan was to establish a colony for epileptics on a large tract of land with, but widely separated from, the institution for the feeble-minded, the establishment of which was then also under consideration.

Three groups of buildings were to be constructed, each group to be adapted to the needs of the class it was proposed to care for in it. One group was intended for the school cases of the feeble-minded; a second group for the purely custodial cases of both classes, and the third it was intended should comprise the colony for epileptics proper. The advantages of such an arrangement are obvious, if we consider broadly the characteristics of these classes and also the need of economy in construction and administration in providing and caring for the defective and dependent classes, which are making ever greater demands upon the public treasury.

The bill introduced to serve as a beginning to the execution of this plan passed both houses of the legislature of 1893, but was vetoed by the governor. A subsequent legislature passed a bill establishing the present home for the feeble-minded located at Chippewa Falls.

More recently, Dr. Gordon of Winnebago read an able paper on the subject before our State Medical Society, and has in other ways attempted to excite interest in the matter, with, unfortunately, no apparently better results.

Recent study of the subject of state provision for epileptics indicates to me a lack of unanimity of opinion as to the manner in which such provision shall be made. I would divide those holding these conflicting views into three groups:

First. Those who believe in caring for both epileptics and feeble-minded in one institution. This group may be sub-divided into those who believe that a necessity for the separation of the epileptics from the feeble-minded in the same institution does not exist; and those who would make separate provision for the two classes under one management.

Second. Those who believe in caring for them in separate institutions. This group may be sub-divided into those who would have only certain classes of epileptics cared for in these separate institutions, and those who would provide for all classes of epileptics in the same institution.

Third. Those who believe that there are not sufficient data at hand upon which to base a definite opinion.

Each group presents some good arguments to maintain its position, and these serve to accentuate the fact that the matter is to a certain extent still in a stage of development. The tendency, however, is toward a separation of the epileptics from the feeble-minded, and this tendency is so strong that in my opinion it is only a question of a comparatively short time, before there will be practical unanimity of opinion on this point.

Granting this, there remain for consideration (1) Separate provision for epileptics and feeble-minded under one management, (2) Separate institutions and management for each.

These two points will of necessity be decided differently in different states and under different conditions. States of limited area and population, states of limited population, and states of large area and comparatively limited population, may well consider the advisability of separate provision under one management from a viewpoint of economy of administration and construction, and in the last case of expense of transportation, etc., to and from the institution as well.

States of large population and those of large area and population, will no doubt as a rule adopt the plan of separate institutions under separate management. The question these will have to decide is: shall all classes of epileptics be cared for in one institution, or shall the insane epileptics be cared for in separate institutions?

Thus far, I believe, there exists no separate institution for insane epileptics. In New York theoretically insane epileptics are not admitted to the state institution for epileptics, but are sent to the hospitals for the insane. Practically I deem it impossible to draw a hard and fast line. In Ohio and Massachusetts provision for insane epileptics is made at their respective hospitals for epileptics.

The insane epileptic is probably the most undesirable patient that any institution may have to deal with, hence the desire to get rid of him wherever it is possible to do so. He is a disturbing element wherever he is placed, and yet as a class, on account of his dangerous tendencies, there is greater need of protecting the public from him than from any other class.

It appears to me that the proper place for the insane epileptic is at an institution for epileptics. As it is, comparatively few epileptics are normal mentally, and the line that would have to be drawn would be largely arbitrary. In a measure, the arrangement of buildings for the care of epileptics who are actively insane, should differ from that of buildings for the care of insane suffering from other forms of mental disease.

The modern institution for epileptics is of rather complex arrangement owing to their varying needs. It is true that some of the newer institutions follow the lines of some of our older hospitals for insane; but it does not appear likely that such mistakes will occur very often in the future.

I well remember the contrast between the hospital for epileptics in Wuhlgarten, near Berlin, and the colony for epileptics at Bielefeld, Germany, both of which I had the pleasure of visiting some years ago. This contrast between the huge pavilion of the one and the pleasant and home-like cottages of the other was very striking.

Dr. Sprattling has observed that it is not practicable to adopt the Bielefeld plan in toto in this country on account of the varying conditions; but with modifications to meet these varying conditions it no doubt fulfills the requirements of this class of defectives more nearly than any other plan.

Strictly speaking, the so-called colony for epileptics is not altogether a colony. The colony proper is only a part of the modern institution for epileptics. This is especially true of institutions having provision for all classes of cases. Only a certain percentage of epileptics are adapted to colonization, and this percentage is not as large as many appear to believe. The remainder are of necessity cared for in buildings that possess more or less institutional features.

The question in which the profession in this state will be largely interested is: What plan shall be adopted as best suited to meet the demands and conditions in this state?

Shall it be a colony in connection with the home for the feeble-minded which will mean that eventually another similar institution will have to be located elsewhere in the state, or shall our epileptic population be provided for in a separate institution?

The one has the advantage that it will, at least, at some future time make institutions for both classes more accessible from the parts of the state from which its inmates are drawn. The other separates the two classes—the feeble-minded and the epileptics—more effectually.

I take it that all will agree that under existing conditions it will be wise to make provision for all classes of epileptics at the same institution.

Discussion.

DR. W. F. BECKER—I wish we could finally launch this idea which has been under discussion for fifteen years. The need of provision for the care of epileptics is so great and so well known by the medical profession that we need not discuss that point except with the laity.

The plan of having the feeble-minded and epileptics under one management would make too large an institution, and too large an institution is unmanageable. The modern tendency is toward smaller institutions. I am not in sympathy with the idea of having insane epileptics in the same place with other epileptics. The need of making provision for insane epileptics is great, but if an attempt is made to provide for both in one institution it would discourage the entrance of ordinary epileptics. There are many epileptics going about, in one year 45 were received at the Emergency Hospital; many of them can find no employment on account of their attacks. They are driven from pillar to post and have no place of refuge. Detention in a community where they can be satisfied and happy offers the best solution. They should have trades and occupations, for it has been found that the proportion of recoveries is greater when they are occupied, and the communities may be almost self-supporting. Here they may pass their lives and thus prevent the danger of reproduction, but they must be placed where they will be satisfied or they will not be contented to stay. It need not be called an institution for the insane or for the non-insane, as all the cases sent there must be selected and judged individually.

At this time we can urge the adoption of a plan of some kind and urge the making of an appropriation. The State Board of Control can help us out by taking the cases of insanity from the hospital and putting them in the insane asylum. The fact that we are not settled on a plan need not make us hesitate to act. The situation should not be so remote as Chippewa Falls but should be where it would be more accessible to the parents and friends of the patients, near the center of the state or near the center of population.

DR. R. DEWEY—I have always felt great interest in the matter of provision for the care of epileptics. It is a matter of much importance to the state that those affected in this way should be cared for and this can best be done in hospitals. When an epileptic has developed insanity he should be cared for away from the other insane. These cases require different care and oversight and more restriction of their privileges, while the harmless insane require enlargement of theirs.

There are epileptics who are not insane, but there are not many affected by epilepsy to a serious degree who are not so at times, the outbreaks of mental violence taking the place of the outbreaks of muscular violence. This makes it hard to divide the cases and care for them in separate institutions. The important thing is to carry out a campaign of education so that the people will be ready to act upon the plan when it is presented. A large tract of land should be obtained as soon as possible, for land is advancing in value near the large cities, and the institution should be near the cities so that the cases may be carefully observed and studied. The Craig Colony is very nearly self-supporting and the patients are much benefited by the out of door life, the shop work, etc., which steady occupation gives them, and the number of cures is increasing under this system. There is one deficiency in the provision made for epileptics in New York. Insane epileptics are not received at Craig Colony, and they are most in need of such a provision. Many of them are sane a large portion of the time and they ought to be allowed to remain at large until some outbreak takes place.

Almost every epileptic is potentially a criminal, not a responsible but an irresponsible one. It is to be hoped that at the next legislative session it will

be possible to have some action taken which will permit securing a large amount of land on which a colony can be founded. It is less important to make a distinction between the insane and the non-insane epileptics. It would seem that we must be satisfied with a double institution under one management.

DR. U. O. B. WINGATE—One point I would refer to is the importance of unanimity on the part of the medical profession in order to get anything done. If the profession agrees on some one plan and the societies endorse it, legislative action is sure to follow. After the institution is provided for the other questions will be settled as they arise. It is a question how many epileptics there are in the state; Kempster estimated the number at 6,000, while Gordon estimates it at between 3,000 and 4,000. Of course not all of them require institutional care, but a large number do.

DR. W. F. WEGGE—I wish to thank the gentlemen who have discussed the paper so fully. My sole object was to bring the matter before the Society. I agree very fully with all that has been said except with the first part of Dr. Becker's remarks in regard to separate institutions for insane epileptics. All epileptics are liable to become insane at times. Why go to the expense of sending them to a separate institution and afterwards returning them to the first one? Would it not be better 'and more economical to treat them where they are?

There is, I believe, a movement on foot to make some provision for the dangerous and criminal insane at some hospital in the northern part of the state. The idea that has been conveyed to me is that the place was to gather the criminal insane, the epileptic insane, and the dangerous insane in the same institution. The epileptic insane should not be compelled to associate with the criminal. It does not seem a proper course.

NEGLIGENCE OF THE PROFESSION IN ITS DUTY TO SECURE TEMPORARY DETENTION QUARTERS FOR THE ALLEGED INSANE.*

BY J. P. McMAHON, M. D.

UNION GROVE, WIS.

It may be superfluous to attempt a definition of what is meant by temporary detention quarters for the alleged insane, and yet it may be best at the outset to have a common viewpoint from which to consider this question. By temporary detention quarters for the insane, we mean quarters established for every county, or better for groups of counties, to receive all alleged insane and there to detain them for

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from seven to fourteen days for the purpose of making final diagnosis, and for the further purpose of separatng the temporary insane from the chronic insane with a view to the discharge of the former and commitment to state or county institutions of the latter.

This subject may be viewed from the following standpoints: 1. The necessity for such temporary detention quarters; 2. The principles of law to be satisfied; 3. Economic aspect; 4. History of agitation in Wisconsin; 5. Present law and failure of authorites to employ it; 6. Deductions to be made.

The subject of temporary detention of the alleged insane is one which was brought to my attention during my senior year in medical college. At that time the thought of the possibility for benefit to patient and physician alike, to be derived from such quarters, impressed me very much. Two years later, in the management of my first case of mental derangement involving the practical application of this plan, the thought was brought home to me most forcibly. The case in question was that of a male sexual psychopath, 20 years of age, whose acute condition was caused by alcohol. This was manifestly a most appropriate case for temporary detention. Being familiar with the provisions of the statute, I proceeded to locate the quarters for our own county, but I regret to admit that none were to be found there or in any adjoining county. I was not to be swerved from the prescribed course, however, and after considerable argument the parents, though of limited means, consented to employ a private sanitarium in the absence of county quarters. This was done for two weeks at an expense to them of some seventy dollars. At the end of this time the condition of the patient remained unchanged, the parents considered the expense unnecessary, and commitment to a state institution was necessary. Believing that the course followed caused them unnecessary and fruitless expense, the result is that the parents and their relatives have had an animosity towards me ever since. I can further state that the patient was transported to one of the state institutions where recovery was rapid and up to this time permanent. Out of this experience grew the conviction that something more should be done to secure the establishment of temporary detention quarters for the alleged insane.

From the standpoint of humanity all will agree that, whether the stigma of adjudication as non compos mentis under the law be a true or a false one, no one craves it for himself or for his next of kin. On the contrary, it should be avoided in every case possible. Who of us here to-day, would want to be put into a jail or lock-up or have his citizenship denied because of the delirium of typhoid fever, which would probably often be done if the patients were physically strong

enough to be ambulatory? Is it not just as unreasonable to place a man in a jail or lock-up, and later adjudge him insane because of alcoholic toxemia? Or to place a woman suffering from hysteria in the same place, as has often been done and is being done daily? There is one class of patients in particular on whom the sight of restraining structures has a very baneful influence, namely, those of a depressed type of insanity who seem to have a more acute impressionability in the incipient stage. This applies more especially to those entertaining the idea that they are being persecuted. These hallucinations often become so intensified by environment in criminal detention quarters as to render them actually insane though they were not so when confined. As a result, these delusions become so fixed that a very considerable period of time elapses before they become effaced. Instead of being placed in temporary detention quarters at the outset, where proper treatment might be instituted with the practical assurance of rapid and complete recovery in all three classes, and the avoidance of the unwholesome court ordeals and the stigma of commitment visited upon the unfortunate patients, the three types of patients (alcoholic, hysteric, and melancholic) are added to the already overcrowded hospitals for the insane. All that is asked for here can be done without prejudice to the more unfortunate who are suffering from protracted or chronic mental derangement, and, it may be added that a diagnosis of these chronic cases can often be made only after repeated examinations by those who are expert in the management of the insane. So much for the humanitarian aspect.

There is a principle of law that no one shall be deprived of liberty or property without due process of law. This due process requires notice, hearing and judgment. The law also provides protection from homicidal tendencies, and disturbance of the public peace. The law should go further and provide protection to the individual from suicidal tendencies. While commitment to temporary detention quarters does practically deny citizenship, it is only for a short period of time, the period being ten days unless extended, and this commitment is to the end that a more extended denial may be avoided. The temporary detention is undoubtedly the next best thing to voluntary commitment, if not actually better, since the law requires that voluntary commitment shall be to an insane hospital which will have the same effect on the mind of the patient as would imprisonment. Besides, the self-maintenance requirement in voluntary commitment precludes many who seek state care from this course. The protection of the patient from suicide, the protection of society from homicide, and the main-

tenance of public peace, are all well provided for by temporary detention quarters.

Now, as to the economic aspect. It is maintained that under the temporary detention system the expense of investigation to the county and the expense of trials and transportation would be reduced considerably, and also that the expense to the state would be greatly reduced by minimizing the number of acute conditions rendered chronic by confinement in criminal quarters during the earlier hours of the existence of these acute conditions. The annual admissions to the Psychopathic Wards of Bellevue Hospital are about 3,000. Of those about 1,800 are committed to asylums for the insane, and 400 more are found insane but are cared for at private expense. 800 of the 3,000, or about 37½ per cent., are pronounced sane and discharged, thus relieving the state from further care of them. It is readily seen from the above data that under the temporary detention system the expense would be materially diminished.

So far as I can determine, the agitation of this question before this Society began in 1894 when Dr. M. J. White read a paper advocating a detached pavilion to be established in connection with city hospitals, where these patients were to be detained for from five to fourteen days. The patients found insane were then to be transported in an ambulance to the insane hospital, accompanied by a trained nurse or by an attendant. At this same meeting a committee of three was appointed to investigate the subject and report.

In 1895 this committee reported that the physicians in charge of the state institutions had agitated and asked for an improvement in this direction previous to this time, but that their requests had been ignored. This same committee brought the matter before the legislature in 1895, but the legislature took no action. At this same meeting of the Society (1895), a resolution pledging persistent agitation of this subject until improvement was secured, was lost. Under pressure brought to bear by this society, the legislature of 1897 passed the present law, which makes possible the establishment of temporary detention quarters. In the meeting of this Society held in 1897, Dr. W. F. Becker read a paper which reviewed the law, and contained an eloquent plea for its practical and universal application. This same meeting appointed a committee of five for the purpose of promoting the establishment of detention hospitals throughout the state. At the meeting of 1898 this committee reported progress and stated that they had confined their activities to Milwaukee, where the Emergency Hospital offered an opportunity for the working of the detention system. A report was called for at the meeting 1899 but none was given. In

1901 the same committee reported slight progress and stated that the opposition and obstacles in the way of using the Emergency Hospital appeared to be disappearing; they further stated that the indications pointed toward the establishment of quarters at the Emergency Hospital, at an early date. But up to this time, no temporary detention quarters have been established in Milwaukee or in any other place in this state, nor is there apt to be any established unless the medical profession again takes up the matter.

This conclusion is based upon answers in response to inquiries directed to ten county judges situated in the centers of population in this state. The answers vary from a statement to the effect that the judge knew nothing about it to a statement to the effect that in one county only a general hospital is sometimes used. The judge of the latter county informed me that he is going to petition the county board at its next meeting to provide separate quarters in the asylum for chronic insane in his county, to be used for detention purposes. This movement, though from the hands of a chancellor who in the past has done more than any other judge in this state to accomplish the purpose of the law, will bring about the very results that the spirit of the law is intended to prevent. Because surely if it is prejudicial to the interest of the patient to be confined in a jail or lock-up or poor-house, it would be most detrimental to his interests to be placed in the environment of an asylum inhabited by chronic insane. Another judge stated that his county has no detention quarters, but that it has a county insane asylum. Still another judge stated that his county has no separate detention quarters, but they have a padded cell in the county jail to be used for detention purposes when necessary under section 586, act of 1897. The practice in these two counties not only fails of appreciating the purposes of the law, but in the last instance is even contrary to the letter of the law, for the law specifically states that no such temporary detention shall be in a jail, lock-up or other prison, or in any poor-house in this state, unless absolutely necessary for the protection of the patient and public.

From the replies quoted and from the others received we have a fair index of the negligent manner in which the temporary detention act has been employed.

As to the present law, the statute provides that there may be a temporary detention ordered by a county judge for a period not to exceed ten days unless extended, the extension being left to the discretion of the court. It further provides that such detention shall not be in any jail, lock-up or in any poor house. According to the statute the county board is authorized to provide such detention quarters, but

emphasis should be placed upon the fact that this law is not mandatory, and that it provides simply that certain things may be done.

Now, what can we as a profession do? Since the law is not mandatory, and since we maintain that the commitment of the insane is a purely medical instead of a medicolegal or lego-medical function, as the attorneys would have it, we believe that it is the plain duty of this Society to again take up the work so nobly started and to continue it until there shall have been established quarters suitable for the reception and detention of all alleged insane in every county or at least in every center of population in this state. We further submit that the most expedient means of securing these proposed quarters would be to appoint a committee from the Society at large who should be made responsible for the work, and they in turn should work and co-operate with the several county societies. The members of these latter organizations can best approach their respective county judges and county boards.

Discussion.

DR. WILLIAM F. BECKER of Milwaukee—As a member of three different committees—the doctor says there are but two, but there really were three—that have been appointed to promote the establishment of detention quarters, and nothing having been achieved, I ought to represent the committee in sackcloth and ashes. But we have accomplished a great deal after all in the way of educating public opinion at last; the newspapers help us; the judges have been interested and we are gradually bringing this thing about in the city here; and indeed we already have the detention idea in the way of committing patients temporarily, for the period of ten days, to an institution where they are examined and where the necessity of a final commitment is determined. But—paradoxically—such detention is in the insane hospital itself, and that defeats one of the objects of our propaganda that the patient should not be sent to an insane hospital unless he is actually insane. Practically all cases are sent out under temporary detention at present to the Insane Hospital in the absence of special quarters.

The chief necessity of temporary detention is to have the insane kept out of police stations and lock-ups. That is the most important idea—that we must divorce the insane from the criminal proceedings as much as possible. Sick people should not be cared for in criminal quarters; it is bad enough to have alcoholic toxemia treated there, and the day will dawn when that will end. If you go to the jail to-day you will find three supposed insane and one insane at the station house. On the lower tier, locked up with a lot of criminals, is a young married man the victim of an obsession to kill his wife, who asked that he be locked up to prevent its execution. Yesterday he recovered from the impulsion, or it seemed so, and asked for his release, but it was manifestly improper to have him at large. He belongs under medical not criminal restraint, and observation in detention quarters. On the next tier is a middle aged amnesic who seems to have forgotten everything that happened within about ten years. Thus far it has not been possible to trace his relatives as

the names he gives are those of people who are dead. He frets under his confinement in the dark jail, wishes to be released and certainly belongs in a sick ward where his case can be diagnosed and handled properly. On the top tier is a man arrested for disorderly conduct, I believe, whose delusions are not clear, though of a grandiose character and non-alcoholic, who frets like the rest, and like them has no business to be shut up in jail. I recall in this connection a woman from the better walks of life who, while attending a convention here, likewise became amnesic and in confusion wandered about the city unable to give an account of herself, and in the absence of detention quarters was kept in the police station, to her great mortification, when she came to herself a few days later.

The ideal place for detention quarters is one in connection with a general hospital. That is why we have wanted the Emergency Hospital here for the purpose. Cases would be taken there directly by the police. The object of all this is to keep the alleged insane outside of and away from the atmosphere of the insane asylum and the jail, and this object is defeated if the detention quarters are established in an insane asylum, or indeed in any place separate from a general hospital, for any such place would soon acquire a repute as stigmatizing as the insane hospital.

I would like this opportunity to say a word about the voluntary law by which patients may be admitted to insane hospitals just as they are to other hospitals without any of the iniquitous court proceedings. It has been made too little use of by the profession. I believe that more than one-half of the cases could go that way and avoid any judicial proceeding or publicity or quasi criminal atmosphere. All the sanatorium patients go in that manner to the sanatorium without commitment, and in this respect the public insane hospitals are only sanatoria for the poor. When I made a report of the operation of this law to the Society a few years after it had been enacted, I found only 17 cases in the state in which it had been made use of. It appeared at that time that hospital superintendents did not like the law as it placed these patients on a different footing from others, inasmuch as they could demand their release on five days' notice. But if hospitals for the insane are to be hospitals in fact as well as in name, it behooves superintendents to encourage voluntary commitment, and if it is best that patients thus committed should remain when they ask their release, to resort to persuasion and other measures which are the only measures available to superintendents of sanatoria.

I think voluntary commitment to the Milwaukee Hospital for Insane to have been larger in proportion than elsewhere. That would indeed be a great achievement if we could work independent of the courts in these cases.

Q. What proportion of those sent out to detention hospitals are discharged?

DR. BECKER:—In the detention hospital in Chicago, out of 1,100 committed, 300 were discharged as not being proper cases for permanent commitment.

Q. How about Milwaukee county?

A. Because we commit them temporarily to the insane asylum direct, having no temporary quarters, we are very careful, of course, to establish their insanity beyond any possible question before they are sent there.

DR. WALTER KEMPSTER of Milwaukee—The necessity for detention quarters hardly needs argument. It is a matter that has been brought before this Society for many years. In 1874 the matter was discussed, and periodically ever since. The difficulty is to get the quarters, and until, as our distinguished president suggested in his address yesterday, there is a good sprinkling of the medical profession in legislative bodies, we are not likely to make progress with the work that we know to be wise and good.

We know what has been done lately in educating the public mind about tuberculosis. We must educate the public mind about insanity, or about those supposed to be insane. The statistics already given show how large a proportion of those who are arrested, and sent to various hospitals as insane, are found on examination to be not insane. We must, however, go back to the detention ward. The laws of this state and many other states are about as crude as it is possible for a law to be with reference to this whole subject of insanity. The idea that people must submit to a jury trial in many cases, to determine whether a person is sane or insane, is absurd. It is a relic of the time following the exposure of Bedlam and has no place in the twentieth century. You might as well have a jury trial to find out whether a man has appendicitis or not. Insanity is a disease and is so recognized by the profession; the profession is competent to determine that question; but the laws say you are not; and the question of the existence of disease must be submitted to judge and jury, and legal procedure must be taken often to the detriment of the patient, and frequently bringing discomfort and distress, not to say cruelty, upon many of those who are arrested, because they are bereft, for the time being, of the ability to express their thoughts properly, as in the cases of aphasia, amnesia, or a severe shock. It would be just as appropriate to demand a jury trial for persons who have sustained injuries which for a time deprive them of consciousness, but which necessitate some capital operation—the amputation of the good right arm or leg. Legal procedure is never dreamed of in such a case; the person is taken to a hospital, the limb removed, and every proper attention given to prolong life before consciousness returns. The persons are not asked whether they consent or not; it is done because it is a necessity. Yet because a person has another form of disease called insanity he must submit the matter to a judge and a jury to determine whether he is sick or not. Even the fee that we expect to get for making examination is fixed by law.

It is time to assert ourselves about this matter. It is time for one profession to quit meddling with the other. Let lawyers attend to the law, and quit attempting to diagnose disease by law, or treat it by law, or fix a fee by law for physician's services; we are quite competent to diagnose and treat cases of disease without statutory provision.

In Milwaukee county we worked for years to get an emergency hospital and temporary detention quarters for the alleged insane; we could not get it and we did not get it until the beneficence of John Johnston gave it to the city.

Then came the question of how it was to be sustained. The common council from year to year has made grudging appropriations to provide for the care of people who are taken there. We have tried to get a detention ward provided in the Emergency Hospital, and partially succeeded—indeed an appropriation was made by the city for that purpose; but when the county desired to use the hospital and the county officials conferred with the city

officials, the whole project was blocked, because the officials could not agree on the subject; and we have no detention hospital. We are doing the best we can to prevent the innocent sick from being taken to jail, or from being placed in an institution for the insane when they are not insane; but there is very much to do to attract public attention, and progress is slow. This profession must do it, or it will never be done. The whole plan needs reorganization, the people to do it are those connected with the medical profession. When the press understands the matter it will use its powerful influence to aid us, but until there is a complete reorganization we must suffer as we do now.

THE PROSTATE GLAND.—ITS PRINCIPAL AFFECTIONS WITH SOME OBSERVATIONS ON DIAGNOSIS AND TREATMENT OF HYPERTROPHY.*

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The subject Surgery of the Prostate assigned to present you today is one of great interest, and it is one of such magnitude that in the time at our disposal it will be necessary to omit much that may be of importance, to take up that which is of greater interest. In the preparation of this paper we have consulted a great deal of current literature in the form of monographs and periodicals, and have drawn freely from these sources. Individual credit is not given to the various authors in the body of the paper, but a bibliography of all works consulted is appended.

EMBRYOLOGY.—It is known that in the twelfth week of embryonal life the future prostatic urethra acquires very thick muscular walls and the original epithelial tube pouches out into the muscular tissue in the form of little sacs, the lining cells of which assume the character of secreting epithelium. In this way is produced the aggregation of muscular and glandular tissue known as the prostrate gland. At the fourth or fifth month this is a well developed structure.

ANATOMY.—The prostrate gland is a body consisting of two lateral masses which coalesce, and which surrounds the vesical end of the urethra and therefore is situated in front of the bladder. The first twenty or more little lobules form the side lobes of the prostate. Those which develop later between the wall of the bladder and the seminal ducts form the middle lobe or, in other words, the middle lobe arises from the posterior commissure.

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The prostate is a conical gland, its base being directed toward the vertebræ and its point toward the membranous portion of the urethra. It lies entirely behind the triangular ligament or deep perineal fascia. Its postero-superior surface lies against the anterior wall of the bladder as far as the sphincter vesicæ internus and it is fixed in position by the pubic prostatic ligament. Its postero-inferior surface lies against the rectum, to which it is attached by firm connective tissue. The convex lateral surfaces are partially covered by the levator ani muscle. The point of the gland touches the urogenital diaphragm. The weight of the gland normally varies from 16 to 20 grams. The prostatic portion of the urethra passes in a slight curve through the prostrate gland and occupies the second anterior fifth of the space from before backwards. Three-fifths of the normal prostate is behind the posterior level of the urethra. The prostatic urethra is 1¼ inches long. Anteriorly upon the floor of the prostatic urethra lies the veru montanum, and on either side of it are the prostatic sinuses into which open some 15 to 20 ducts. The two openings of the ejaculatory ducts are placed at the anterior portion of the veru montanum. The seminal ducts converge as they approach their terminations in the urethra. The seminal vesicles recede from the prostate along the posterior wall of the bladder and are closely attached to the bladder. The anterior wall of the urethra is crescent shaped, its convexity forward. The posterior surface of the urethra extends forward into this crescent. The prostate is made up of glandular and muscular tissue of varying proportions. The muscular tissue is arranged around the neck of the bladder forming an external and internal sphincter. The gland is composed of from 20 to 30 acinous glandular lobules separated from one another by fibro-muscular septa though not very distinct. Each lobule has a separate duct. The alveoli are lined with columnar epithelium. The stroma is composed of varying amounts of muscular and connective tissue elements with some elastic tissue. The muscular fibers may be one half or more of the entire gland mass continuous with the fibers from the bladder above, and below mixed with a small amount of voluntary fibers from the transverse perineal muscles. The cortex of the gland is made up almost entirely of nonstriped muscular tissue mixed with a small amount of fibrous tissue which can be separated from the glandular elements with difficulty. This comprises what is known as the capsule of the prostate. This capsule at times may be distinct. Between the layers of the capsule are found the prostatic plexus of veins. The vessels lie in the median line. The arterial supply is from the in-

ferior vesical and middle hemorrhoidal arteries and also small arterioles. The veins form a plexus in the capsule and empty into the vesico-prostatic plexus. Lymphatics accompany the venous plexus and end in the internal iliac nodes. Nerves are branches from the hypogastric plexus.

PHYSIOLOGY.—The prostate gland is both a urinary and sexual organ though its physiological importance in the formation of the seminal fluid has not been definitely determined; that it is closely co-related to the testicle there is no doubt.

SURGICAL DISEASES.—In looking over various books and articles one cannot help but be struck with the many pathological conditions affecting the prostate. The literature of these diseases is voluminous. In a book published by Socin he refers to 1200 separate articles and monographs upon the prostate. There may be congenital anomalies of the prostate. Its absence is found only with defects of the urinary and genital apparatus. The sinus pocularis may be occluded at birth. This explains the difficulty experienced by certain male children to urinate during the first few days. When once such a child has passed water under considerable pressure it has no further trouble, but it is well not to wait too long in such cases before passing a catheter. Cysts may develop in the cellular tissue between the rectum and the prostate and be due to outgrowths from the blind termination of the sinus pocularis. The prostate though so well protected may nevertheless be injured, especially in crushing injuries to the pelvis. Then we may also have acute and chronic inflammation of the prostate, gonorrhea being one of the most common; some observers have claimed as high as 50% infections of the prostate accompanying or complicating infections of the urethra. These acute or chronic inflammations may progress to form an abscess, which either opens spontaneously into the urethra or rectum, or which may necessitate an incision (prostatotomy) for the evacuation of its contents. Tuberculosis is another pathological condition which almost never occurs independently in the prostate, but is due to the extension of the disease in some part of the urogenital organs. If it occurs in the prostate primarily it is usually not recognized until the disease has spread to neighboring structures. To date syphilis of the prostate has not been reported. We may also have stricture of the prostatic urethra following inflammatory conditions. Of the malignant neoplasms there may be sarcoma and carcinoma, the former being very rare and the latter a common pathological condition since we have come to apply our modern methods of research and examination. Some observers claim the percentage of carcinoma in prostatic enlargement to be one in seven past fifty years.

We now come to a condition which has caused the medical man for generations a great deal of perplexity and anxiety, and while an almost exact method of dealing with this pathological condition has been attained, nevertheless there is yet much to be said upon the question,—the condition which we will now speak of may well be designated under the common term of *hypertrophy of the prostate gland.*

The increase in size of a prostate gland which has become senile is so frequent that the man who reaches old age without experiencing any difficulty on this account may regard himself as specially favored. Such increase in size appears to be rather an inconvenience of old age than a morbid process. The "catheter life" seemed, indeed, but a few years ago, the inevitable termination, the last stage, and the safeguard of the urinary passages. The resignation of those afflicted, the impotence of the bladder as well as of the surgeon kept pace, and for want of any remedy the "prostatics" managed as best they were able with bladders which so mysteriously concealed the cause of their inefficiency.

HISTORY.—We may profitably spend a little time in reviewing the history of prostatic surgery in the aged. The existence of the prostate gland was not known until the middle of the 16th century, it being discovered by Nicholaus Massa, and in the next century it was found by Riolanus to cause obstruction to the passage of urine. However, the ancients thought that patients suffering with obstructive hypertrophy of the prostate were the subjects of excresences or "carnosities" developing in the urethra; the treatment therefore was directed to the passage of metallic instruments through the penile urethra. Long ago Hunter, Brodie, and Home had tried tunneling the obstructing body by means of sharp instruments but this was abandoned as dangerous. Later systematic compression, to maintain a patulous urethra, was employed by Leroy d'Etiolles and Mercier; but its most ardent advocate was Harrison of London, who used olive bougies, which were passed more or less often in 48 hours. The bougies produced compression of the prostate both upon their introduction and withdrawal. These were allowed to remain in place for several minutes. D'Etiolles also advocated incision and scarification of the prostate through the urethra. Perineal operations came to be practiced much earlier than the suprapubic method owing to the wide spread practice at that time of performing perineal lithotomy. Perineal prostatectomy was practiced for prostatic enlargement by Blizzard before 1806. In 1827 Amussat removed the middle lobe of the prostate through a suprapubic incision. But the first regular

surgical procedure was established in 1886 by Guthrie "of incising the bar at the neck of the bladder", the bar being produced by enlargement of the lateral lobes drawing up a fold of mucous membrane across the vesical orifice of the urethra. Mercier in 1837 devised an instrument upon the order of the internal urethrotome. Bottini in 1873 introduced an instrument which aimed to control hemorrhage attending Mercier's operation by the use of galvano-cautery. Freudenberg in 1897 still further improved this procedure by the addition of a centimeter scale to the shaft of the Bottini instrument in order that the operator might have a more definite idea of the position of the beak of the instrument when in use. Young, in 1902, modified the above by supplying blades of different sizes. Tenney in 1904 presented an instrument with endoscopic attachment for application of the cautery. Some other methods worthy of mention, used for tapping the bladder in cases of retention of urine where it was impossible to pass a catheter, were puncture, either suprapubically, perineally or through the rectum; the rectal route being preferred as it was found the channel thus formed served fairly well for voluntary micturition until the urethra again became patulous upon the subsidence of the inflammation. Cystotomy and prostatectomy was the logical result of the treatment by suprapubic tapping for urinary retention. The honor belongs to Belfield of Chicago who proposed and executed the first suprapubic prostatectomy in October, 1886. McGill of Leeds, 1887, belongs also to the originators of this operation. Fuller suggested counter pressure on the perineum and an incision into the urethra for better drainage. In 1889 Guiteras suggested the method of lifting up the gland with two fingers in the rectum and thumb on the perineum. At first operators were content with cutting off with scissors or rongeur forceps, twisting off with bladder forceps, or the ecraseur, crushing with the lithotrite, projecting masses of prostatic tissue.

The honor belongs properly to Fuller, of New York, primarily, and Freyer, of London, for bringing to the attention of surgeons a clear and concise technique for the complete removal of the hypertrophied prostate through a suprapubic incision.

Indirect operations performed for prostatic hypertrophy have been castration, which White advocated in 1893; the ligation of the vasa deferentia advocated by Mears in 1894; vasectomy advocated by Harrison in 1893; that of angioneurectomy advocated by Albarran in 1895; ligation of the internal pudic artery advocated by Bier in 1895, and which was performed by Willy Meyer in three cases with unfortunate results in two of them.

The generic term "prostatic hypertrophy" by most writers includes the true hypertrophy and *atrophy*. True hypertrophy may be (1)a general increase of all the component elements of the gland leading to a uniform enlargement; (2) an increase of one or more component elements, i. e., *fibroma,* adenoma, myoma, with a combination of two or more of these histological structures. Most observers maintain that primarily atrophy of the prostate was a real hypertrophy with a preponderance of connective tissue with subsequent contraction resulting in destruction of the muscular and glandular tissue. In cases of atrophy causing obstruction the previous hypertrophy has usually not given rise to symptoms.

The secondary pathological conditions arising from urinary obstructions are numerous, such as hypertrophy and degeneration of the bladder wall, cystitis, stone, ureteral infection and dilatation, pyelitis, pyelo-nephritis with resultant renal insufficiency.

SYMPTOMS.—Every male over fifty years of age, who complains of frequent micturition of small amounts, sudden stoppage of flow, the symptoms extending over some time or who reports that total retention has occurred requiring catheterization or aspiration, leads the surgeon to think at once of prostatic hypertrophy or stone. The diagnosis is completed by rectal examination, sounding of the bladder and the examination of the urine passed, which later determines the question of cystitis and its character.

By passing the catheter while one finger is inserted in the rectum the depth of the prostatic urethra can be estimated by the distance traversed in the prostatic portion before the urine flows. The quantity of residual urine is now ascertained, the condition of the bladder muscle determined, also the size of the bladder by irrigation. The next important step is the general examination of the patient with regard to the condition of the nutrition, heart, arteries, kidneys, general appearance and age.

Prostatic hypertrophy is now indeed considered as the definite and almost exclusive obstacle to the evacuation of the bladder, and to overcome this obstacle we have simply to choose between the catheter and the extirpation of the prostate.

The field of discussion is therefore limited to the questions of (1) Indications for continuance of "catheter life" or (2) The extent partial or complete, the technic, and the indications, relative or absolute, of operative procedure.

Catheterization, carried on in an aseptic, methodical, and progressive way, has not been the object of any recent improvements,

and I have only to discuss its therapeutic indications; likewise in regard to suprapubic cystotomy, which is nothing but an artificial and very exceptional method of evacuating the bladder.

Catheterization, which has saved so many a man and which still permits many to live so long and in such comparative comfort, does it merit the ostracism to which it has been condemned? Is it the cause of all the ills which have been imputed to it by the more radical operators?

All those who catheterize themselves easily, morning and evening or even four or five times a day, that is, both the total and partial retentionists, are doubtful subjects for an operation which kills from three to six out of one hundred, and which leaves a large number of others in a condition far removed from perfect recovery. An exception may perhaps be made in favor of those cases that, on account of the nature of their occupation, are not able to empty the bladder regularly.

Painful catheterization (if this complication is definite and permanent), and difficult catheterization, or catheterization attended by hemorrhage (if these, like the pain, are constant and cannot be modified, ameliorated or suppressed by the usual methods) become indications for operation. But we cannot insist too strongly on the fact that the complication must have resisted a well conducted course of treatment.

It is too easy to say, in case of a slight inflammation of the urethra or bladder or of a slight orchitis, that catheterization was difficult or painful. We have the right of demanding other guarantees of operative indications, and any statistics which do not investigate and define conscientiously these indications are the work of a mere operator and not of a surgeon. To act thus would be to compromise the real progress in genito-urinary therapeutics.

Before taking up the precise indications for prostatectomy let us consider briefly the immediate and ultimate results of prostatectomy under the following heads:

1. Mortality.—The following general figures are given by Tuffier: In 1192 cases representing the total of perineal prostatectomies, these being the cases collected by Proust, this author finds 79 deaths, a mortality of 6.6 per cent. This is very nearly the same as the mortality found by Watson: 33 deaths in 530 cases, that is 6.2 per cent. Horwitz, quoted by Proust, estimates the mortality at 5.7 per cent.

If we study some of the larger statistics previously published we find about the same figures.

	Cases	Deaths	Per cent.
Lequeu	45	4	8.8
Hartman	56	5	9
Delageniere	16	5	31
Pouchet	53	4	7
Rafin	32	2	6.2
Young	75	2	2.6
Albarran	73	3	4

As to *transvesical prostatectomy*, Watson in summing up 243 cases finds 28 deaths, or 11.3 per cent. Proust, 384 cases, 41 deaths, or 10.7 per cent. Freyer in 205 cases of his own had 15 deaths, or a total mortality of 7.35 per cent."

From a circular letter sent out to leading surgeons of America and Europe the following data were collected:

	Cases	Per cent.	
Fuller	370	4	(suprapubic).
Porter	10	10	"
Moynihan	33	12	"
Lilienthal	40	5	"
Pilcher	23	8.7	Perineal
Eastman	15	6.6	Perineal
Mumford	20	0	Suprapubic
	5	20	Perineal
		3	Perineal. No deaths.
Marshall and Quick	4	1	Suprapubic. 1 Death.

Many letters were received, but in most of them the data were not in such form as to furnish statistical matter.

The following statistics were quoted from Pilcher:

I. Small median incision; finger enucleation unaided by sight:

	Cases	Deaths
Goodfellow	78	2
Murphy	51	1
Syms	33	2

II. Free transverse perineal incision; visual control of enucleation by finger and instrument:

	Cases	Deaths
Young	75	4
Albarran	59	2
Hartman	36	2
Proust	30	0
Pouchet	20	1
Rafin	20	1

III. Total enucleation by finger unaided by sight, through suprapubic opening in bladder.

Freyer	107 Cases	5 Deaths

The mortality as given by tables made up in America corresponds practically with that found by Tuffier.

In all the figures here given, if we ask for the *cause of death,* we find that both in the perineal and the suprapubic operation it is renal insufficiency which is the principal factor.

If we examine Watson's statistics, which are the largest, although not the most recent, we find that the causes of death are grouped as follows:

Uremia, renal insufficiency	Perineal prostatectomy		35 %
	Suprapubic	"	33 %
Infection	Perineal	"	17.8%
	Suprapubic	"	8.6%
Shock	Perineal	"	21.4%
	Suprapubic	"	30 %
Pulmonary Complications	Perineal	"	17.8%
	Suprapubic	"	22 %

II. Fistulae.—A recto-urethral fistula occurring primarily, through a wound of the rectum, or secondarily after 8, 10, 12 or 30 days through gangrene of the borders of the perirectal wound, a recto-perineal fistula consecutive to a recto-urethroperineal fistula, or finally, a uroperineal fistula, is the first complication to be feared (about 5%). In one-half of these cases the fistula closes in some weeks.

III. The *incontinence of urine* is generally temporary; it is very frequent during the first few days following upon complete cicatrization. It is almost as often diurnal as nocturnal and disappears gradually and completely. The cases of complete and true incontinence are very rare, usually diurnal, and dependent on a destruction of the sphincter.

IV. *Difficulty in catheterization,* due to the anatomical changes produced (usually a deviation of the canal, which may be very pronounced).

V. The *loss of sexual power* is the rule almost invariably except in Young's cases, in which the ejaculatory ducts were preserved by his method of operation. In 50 per cent of his cases sexual power is claimed to have been normal.

VI. Orchitis is often severe and sometimes suppurative; this occurs in 25 per cent of the cases.

VII. Urinary infiltration in the prevesical and perineal tissues is an untoward and relatively frequent complication of the suprapubic method.

VIII. Retention of Urine. A certain small percentage of those patients who escape death from shock, infection, renal insufficiency and other complications still have retention of urine. The obstruction may be completely removed, the bladder wall may have recovered its tone, but the excavation left after extirpation of the gland becomes a retention pocket where a small quantity remains after each micturition, subject to infection and decomposition and always a menace to the superior urinary passages.

IX. After the fatalities and lasting unsatisfactory results of prostatectomy have been mentioned, there still remains a large percentage in which the outcome is all that could be desired.

The mortality in suprapubic prostatectomy is somewhat greater than in perineal, but the minor complications are for the most part avoided.

The *indications for prostatectomy* may now be concisely formulated. The mortality of the operation (4 to 5 per cent), the complications, the satisfactory functional results in the majority of cases, the less pronounced benefits in cases of incomplete retention, the successful results obtained even in cases of advanced age and complete retention, permit us to believe that the operation should be undertaken only for the purpose of remedying certain very precise conditions.

The indication for operation does not lie in the question whether or not there is retention or whether or not there is prostatic tumor; *it lies simply in the question of the protection of* the superior urinary apparatus. Is this apparatus certainly threatened by *aseptic retention* and above all, is it threatened by infective retention? We must have a clear understanding of the terms. A patient whom we can catheterize easily and completely, and in whom we can gradually eradicate the focus of infection is not threatened as to his renal function. He becomes threatened *only when the retention cannot be kept within physiological limits,* and these conditions are realized in the painful, septic, and difficultly reducible retentions, and in the cases of cystitis with frequent and painful micturition; the contraction of the bladder without evacuation causes a uretero-renal retention with a possible reflux of urine, whether aseptic or infected, into the ureters. From this the secreting apparatus will suffer. Aseptic retention which cannot be suppressed within the time desired, cystitis in which the infection cannot be eradicated, cystitis complicated by secondary and recurring lithiasis, bloody catheterizations,—these are the conditions which demand and justify a prostatectomy, which will then be an efficacious aid in the preservation of renal function.

But these indications existing we must not forget that palliative treatment is still applicable to those cases in which the general resistance is depressed from glycosuria, albuminuria, or renal insufficiency. Also in cases in which the prostate is small and sclerotic, and the bladder deprived of contractility, palliative treatment is indicated, for the therapeutic results of operation are dubious.

The indications, relative and absolute, for operative procedure having been established, the question of prostatotomy or prostatectomy confronts us; if prostatectomy, whether by the high route or the low route, the suprapubic or the perineal.

Prostatotomy as advocated by Bottini and his followers has met with disfavor. (1) The operation is a blind one, (2) Asepsis is difficult to control, (3) Its mortality is 7.2%, (4) Recurrence after operation is 13%, (5) A subsequent prostatectomy offers increased difficulty in subjects upon whom Bottini's incision has been performed. This incision is followed by a cicatrix which causes the urethral mucosa to adhere firmly to the prostatic tissues. Hence in subsequent operation there is a tense fibrous tissue without any plane of cleavage, and the isolation of the urethral canal will be almost impossible.

I shall submit the question of the choice of the two routes, the low and the high, to the criteria which must decide the value of any operation; its *ease of execution, its benignity,* and its *efficacy.*

1. Ease of execution of any operation must of course be in great part modified by the experience and manual skill of the operator. It is the consensus of opinion of the men who have done the most prostatic surgery, that the perineal route is the operation of choice for those cases in which the prostatic hypertrophy has developed in a recto-perineal direction, and in very small prostates and in prominent abdomens due to excess of fat. In performing the perineal operation due attention must be given to the facts that the operation is being conducted in the deep perineal fossa, that movements are restricted, and that the bulb of the urethra and rectum are in close proximity to the field of operation. Also the difficulty is increased by the necessity of having to reconstruct the urethra, which is a delicate maneuver in an area not easily accessible.

The suprapubic operation is the operation of choice in those cases (1) in which the middle lobe is principally involved, (2) in which there are many sacculations with vesical calculi or with many calculi alone. While this is given as a consensus of opinion, there are operators who prefer the perineal route in all cases, and others who are quite as partial to the suprapubic.

2. The benignity of an operation depends on the operator, the age of the patient, the local conditions with respect to infection, pathological process, and the general conditions with respect to nutrition, kidney function, arterio-sclerosis, and the like. These factors modify the issue, and it is just these factors that so seldom appear in the statistics. In discussing indications statistics were presented which seem to show that there is a slightly higher mortality in the suprapubic operation.

3. The efficacy of an operation for the removal of the prostate consists in the disappearance of the symptoms which made the operative interference necessary, *viz.* 1st, retention; 2nd, complications due to infection. As to retention, this occurs to some extent after both perineal and suprapubic methods. The method that has the greatest freedom from it is still the moot question. There is far from unanimity of opinion. From anatomical considerations it would seem likely that there will always be a small percentage, at least, of cases in which retention is not cured on account of the deformity caused by the removal of the gland. In a few cases a moiety of urine will be retained in the excavation between the urethra and the neck of the bladder.

As to the relief of infection, barring those cases in which retention is not cured, the cystitis disappears after either method in some months. It is usually necessary to employ irrigations for a considerable time. Frequent micturition may remain independent of cystitis.

Difficulty of catheterization may follow either method due to changes in curvature of the canal which is caused by the enucleation of the gland. Cases reported of recurrence of prostatic hypertrophy do not militate against the efficacy of the operation, because these cases must be examples of incomplete and defective operations.

CONCLUSIONS.

1. The indications for operation in general are found in the menace from distention of the bladder, or from an infection of the superior urinary apparatus. If the retention is septic the indication is imperative. But this applies only to those cases in which catheterization is difficult, painful, and bloody, and in which the infection resists all proper treatment.

To prostatectomize everyone having an enlarged prostate would mean to prostatectomize practically every man over 65 years. Such a course would compromise surgery and surgeons.

2. Each case is a special study in itself with respect to continuance of "catheter life", or whether suprapubic or perineal prostatectomy shall be performed. It is infinitely more important to know

which cases should be operated upon than to settle the choice of route.

3. Choice of operation depends on operator and character of hypertrophy. The perineal route gives less complete therapeutic results but has a slightly lower mortality.

4. The lesion called "Prostatic Hypertrophy" is nothing but an encapsulated adeno-fibroma of the periurethral glands and the prostrate itself is reduced in size and displaced toward the periphery. This capsule being true prostatic tissue is therefore glandular in structure.

5. Bottini operation and all its precursors and modifications will pass into history.

6. Total removal is actually the operation of choice according to the facts that have been published and the therapeutic results that have been obtained.

7. The future belongs rather to the indications than to the operative technic.

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Vol. V. NOVEMBER, 1906. No. 6

EDITORIAL COMMENT.

OCCUPATION FOR THE CURE OF INSANITY.

Current newspaper reports state that many of the insane in the hospital at Agnew, California, recovered by reason of the shock of the earthquake, and that as a result of the outdoor occupation of the patients incident to clearing up the grounds, etc., 150 were discharged cured. It is safe to doubt the first statement though there is much more truth in the second.

Deduction in cures of insanity are apt to be too glib. It takes much time to determine cures and more especially does it require observation after the patient is at large under the stress of outside environment. Very often patients make so-called "hospital" recoveries by reason of which they are well in relation to their hospital surroundings but are not well in their environment at large. Indeed, in many instances it is about the same as estimating the reform of criminals, who may show all the signs of reform within the walls of

the penal institution, but when at large prove that they are not reformed.

The effect of occupation however cannot be too much emphasized. There is still a dearth of occupation in many of our institutions for the insane, and one of the pathetic sights in asylums is the number of idle insane. At our own Hospital for Insane at Wauwatosa we are fortunate in having over 70 per cent. of the men employed. In the summer months farm and garden work—the best of all—is available. In the winter months carpentry, ward work, brick-making, mattress, brush, mat and basket-making take the place of this. The house and ward work keep about the same percentage of women employed.

Indiscriminate or compulsory occupation, as in prisons, is not admissible among the insane, and a nice discrimination is necessary among the many cases of neurasthenia, melancholia, organic diseases—uncomplained of or obscure, cases with loss of the sense of fatigue, etc. To permit or enforce labor in these cases is nothing short of the abuse to which convict labor is susceptible, as witness the recent case of the man of eighty, in Joliet, who was made to work on a stone pile—labor fit only for the able-bodied.

One might point out the danger of this abuse in our county asylums where there exists too much rivalry for economic management. One of our counties made a net profit of $7,000—last year in its care of the chronic insane—so large a number of them being available for profitable labor.

On the whole, however, there is much too little interesting occupation of the insane which in the proper cases makes greatly for their well-being and recovery.

THE SMALL BOY A SAVAGE.

The work that is being done in our juvenile court rooms, reclaiming the vicious and directing the misled, is an educational feature that is meant no less for the little culprit than for his parents.

At the meeting of the A. M. A. at Boston, Dr. G. Stanley Hall, the noted educator and president of Clark University, said: "There is something wrong with the boy of from 12 to 16 years of whom the average woman school teacher will love to say, 'He is a perfect gentleman.'" President Hall has long since recognized that much of a healthy boy's love of mischief is a natural flow of energy—even at times an overflow, or "energy plus," as Hubbard says. This shows itself in various ways: in some, innocent activity; in others a desire to torture younger children or animals; and in others, a degree of savage viciousness that is not to be overcome by coddling. In all, however,

there is an exhibition of energy that will out, that tends to activity in some form or other.

More recently, President Hughes of Ripon College, calls the small boy a savage, and we believe he has a most excellent conception of the case. He emphasized the fact that more attention should be given the boy, and that his instructors must be in sympathy with him.

This sympathy, this desire to enter with the boy in his game of life, can only be done by one who has been a real boy in his day, a real little savage. The man without a childhood deserves our sincere pity; nor is he fitted for the duties of overseeing the training of the young. Educational methods are undergoing a transformation. The child is being studied, not merely taught. The standard of qualifications for a teacher must be revised: true, he must have the mental equipment, but—and of equal importance—he must not lack in knowledge of and sympathy for the normal ways of the healthy child. The days of the Do-the-Boys Hall, are fortunately, over.

THE FACTS IN THE CASE.

A subscriber requests us to print a circular letter sent him by Dr. F. X. Schaeffer of Milwaukee, in which the latter appeals to "friends of medical liberty" for funds to assist him in fighting "for the noble purpose of obtaining liberty from oppressive medical laws." Our correspondent's fear lest Dr. Schaeffer's claim of persecution by the State Board and Health Department "on account of fighting their proposed nonsensical bills before the Legislature of this state," may be taken seriously by fair-minded reputable practitioners, is, we believe, unwarranted, as Schaeffer's case has been before the public so often that his status ought to be pretty well established.

However, inasmuch as we are asked that we publish "for the enlightenment of the members of the State Society and other members of the profession, the enclosed letter, and with it a short history of Dr. Schaeffer and his troubles with the State Board, so he may not, if his cause is an unjust one, impose upon the sympathies of the most charitable fraternity—the Medical Profession"—we will briefly put forth the following facts:

Schaeffer came to Milwaukee in 1896. He secured a diploma from Rutland's Mill, the Wisconsin Eclectic Medical College, on Oct. 3, 1896, and another from the "Independent Medical College" of Chicago, at a later date. In 1899 he was successful in mandamus proceedings brought against the Health Department to compel that body to issue him blank death and birth certificates. He also succeeded in obtaining a Certificate of Registration from the State Board. How-

ever, not satisfied, and desiring a license, he presented to the Board—at its meeting in January, 1900—a certificate alleged to have been issued him by the dean of the University of Prague, setting forth that he had graduated from that university in June, 1895, and that a diploma had been issued him, which diploma had been burned. License was refused. In 1901 he was convicted of practicing medicine without a license. Upon appeal to the circuit court he was again convicted, but an appeal to the supreme court was sustained on the ground that error had been committed in the framing of the complaint.

At the trial in 1901 Schaeffer put in evidence the Prague certificate—the latter purporting to have been written on that University's stationery and signed by the dean of the medical faculty. As a matter of fact, however, all this was proven pure fabrication: Schaeffer committed perjury when he claimed to have graduated at the University of Prague, and the dean's certificate—from seal and printed letter head to rubber stamped signature—was manufactured not three blocks distant from the city hall.

Now, curiously enough, Schaeffer defies anyone's bringing proof of forgery against him, inasmuch as the dean's signature is confessedly a rubber impression; and the whole letter he now claims to have been merely a little joke played on the authorities, though sworn to as genuine before the court. Schaeffer is an Austrian, not an Englishman, and it does seem more than passing strange that it should take him five years to appreciate and announce as a joke his going to the trouble of having rubber stamps of the University of Prague's seal and the dean's signature made, in having "foreign" letter heads printed with the intention of using but one or two sheets, and in having some kind friend concoct and write the fictitious document.

Judge Neelen recently dismissed a suit vs. Schaeffer for practicing without a license, not so much upon the merits of the case, but because the supreme court was about to pass opinion affecting his career —a suit brought under another statute. Not long ago the newest statute—one passed at the last legislative session authorizing the revocation of a license procured by fraud and misrepresentation—was invoked to put an end to Schaeffer's work in this community. He demurred on the ground that this law was unconstitutional. Fortunately, the supreme court overruled the demurrer, declared the law's constitutionality, and sent the case down for trial on its own merits. It is strange, but true, that courts of law frequently fail to see the humorous side of even the most evident "little jokes".

As this is the first case to be brought to trial under the provisions of the new law, the outcome will be watched with interest. What the

court's verdict as to Schaeffer's fitness to pose and pass as a physician, upon the credentials shown, will be, we do not know. The above information, given at our correspondent's request, will allow every reader to draw his own conclusions.

FROM OUT OF THE WEST.

A very clumsy advertising manager of a new five million dollar Cancer Cure Company, whose officers are a mayor, a banker, an ex-state senator, and other prominent lights of Washington State, made us a most generous offer of "news" recently which we were unkind enough to refuse to print. He used the program of the Washington State Medical Association as a rider for an announcement of his new concern, and looked for publicity at its expense. To our request that he tell us who he is, for whom he is "special correspondent," and what relation he bore to the state society, no direct answer was received; nor did it surprise us to learn from the president of the Washington State Medical Society, to whom we wrote for information, that our surmise concerning this fake news item and the correspondent was correct. Some days later an interesting letter came to us from another source—the correspondent's apologist, in which it was stated that it was the stenographer's inadvertence that permitted the remedy concern's announcement to have been added to the other news matter. Needless to say, there is every reason to infer that the "inadvertence" was intentional.

As to the cancer concern, it is probable that part of its large capitalization will soon be in evidence in glaring advertisements resembling those made famous through Collier's exposé. Nor would it surprise us to learn that Dr. Beard's trypsin treatment, which, though discredited abroad, was recently given such an enthusiastic write-up in McClure's, had become the basis of this new firm's benevolent enterprise.

In spite of Collier's strictures of men prominent in affairs of state and finance, who become the partners of quacks, there is, as the announcement quoted above indicates, no lack of others, equally prominent before the public, who are willing to enter into such unholy alliances.

A CORRECTION.

We have been requested to correct an error made in our last issue with reference to the President, P. A. Griffiths, and Secretary, R. P. Hansen, of the Wisconsin Medical Union. Dr. Hansen writes us that neither he nor Dr. Griffiths ever obtained diplomas from the Milwau-

kee Eclectic Medical College, but from another institution, which, not coming up to the standard required, is also defunct. Dr. Hansen says that he holds credentials from the Wisconsin State Eclectic Medical Society, and that this—with his registration certificate under the medical act of 1903—gives him full legal authority for continuing in the practice of medicine in this state.

We grant to all the privilege of banding together for mutual protection, and if those who have joined the Wisconsin Medical Union can prove themselves acting within the existing law, no power on earth can take away aught that is theirs by this right. It is gratifying to learn that the Wisconsin Medical Union has done some sifting, and that there is no desire on the part of its members to flock to the support of anyone who has resorted to fraud or perjury to obtain license to practice in this state.

The doctor dilates lengthily upon the merits of a more liberal conception of what should constitute proper qualifications for the practice of medicine, and for admission to the County Societies. We have no disposition to pursue this discussion, inasmuch as we are in perfect accord with the Medical Practice Act, and this statement must indicate our position in this controversy.

POOR TEETH OF SCHOOL CHILDREN.

The importance of making the examination of school children for possible defects, physical and mental, as exhaustive as possible, and not restricting it to the mere discovery of contagious diseases, is well demonstrated in a set of statistics from abroad. In one small German community, 1,020 school children, 482 boys and 538 girls, were examined with reference to the condition of their teeth. "The boys had 12,826 defective teeth and only 2,116 sound ones. Only 19 of the boys had perfectly sound sets of teeth, 397 sets were unfit for chewing food, with 192 boys disturbances in their general condition were observed, due to decayed teeth. Of the teeth of the girls 15,747 were found defective and only 931 sound. Only 16 girls had perfect sets of teeth; 205 girls were suffering in their general condition in consequence of decayed teeth. The total result showed that 90 per cent. of all the teeth examined were defective; only 35 out of 1,020 children had sound sets of teeth."

It is hardly necessary to emphasize the many dangers to which poor teeth expose the individual. Glandular enlargements, infections, local necroses, digestive and general nutritional disturbances, are common sequelae of these conditions. The wisdom of such an examination, and the rigid enforcement of the correction of discovered abnormalities, is therefore beyond cavil.

THE CHEMICAL INDUSTRY IN GERMANY.

Well may one marvel at the scientific zeal of the masters of laboratory research, the Germans. To their foresight, their painstaking and patient earnestness, and the sufficiency of the emoluments of a life of steady plodding, is due more than to anything else the high rank they occupy among the scientists of the day.

Quite wonderful is the progress made in Germany in the manufacture of chemicals, dyes, and pharmaceutical products. Where 30 years ago England lead in the manufacture of these preparations, to-day Germany leads all the world in their production. Germany's annual output of sulphuric acid is one million tons, and of soda half a million. The annual exportation of quinine, antipyrine and antifebrine is valued at three and one-third million dollars each. Germany furnishes five-sixths of the dyes used in the entire world, and according to competent authority, there are 9,000 factories and 200,000 men employed in the chemical industry.

This is truly a most remarkable record of achievement, almost monopolistic in its scope.

NEWS ITEMS AND PERSONALS.

A Typhoid Epidemic at Niagara was investigated by Dr. M. D. Bird, of Marinette. He found the infection due to filthy well water.

Dr. Bradford Buys Sanitarium. Dr. E. B. Bradford, formerly of Milwaukee, has purchased the Hudson sanitarium from John A. Humbird of St. Paul for 30,000 dollars. Dr. Bradford has had charge of the sanitarium for some time, and now intends to run it permanently.

The Parke, Davis and Co. has issued an interesting brochure descriptive of their new Department of Experimental Medicine, in which research work is being conducted in all scientific branches. The excellent illustrations show the broad scope of the work done by this well known pharmaceutical house.

Dr. J. E. Brown, aged 72 years, a resident of Milwaukee for the last fifteen years, died at the home of his son Philo E. Brown, 2025 State Street.

Dr. Brown was born in Clyde, N. Y., and lived in Albion, N. Y., for many years. He came to Milwaukee from Charlevoix, Mich., and practiced medicine until two years ago, when he retired. He was a veteran of the civil war.

Dr. David G. Hathaway of Wauwatosa died on November 14, aged 42, following an operation. This was the second operation performed, it having been discovered about two years ago that he was suffering from a carcinoma of the bowel. At the time of his death Dr. Hathaway was health officer of Wauwatosa, and had been for several terms county physician for Milwaukee

county. During Gov. Peck's administration he was appointed superintendent of the Northern Hospital for the Insane. On leaving that position he resumed the active practice of his profession in Wauwatosa, where he retained high regard both professionally and as a citizen. He was active in the political and social life of that city.

Dr. J. T. Reeve, one of the oldest and best known physicians in Wisconsin, died on November 4th at his home at the age of 74 years. Dr. Reeve was born at Goshen, N. Y., April 26th, 1832. He was a graduate of the Jefferson Medical College, Philadelphia, of Ann Arbor and of Castleton Medical College, and has practiced medicine in Wisconsin since 1855. He first located at Depere, later going to Green Bay, and then enlisted in the medical corps during the civil war. He was promoted to major surgeon in the Twenty-first Wisconsin regiment. He was captured in battle at Chickamauga and was a prisoner at Libby prison. For nineteen years he was secretary of the Wisconsin State Board of Health and for several years was president of the Wisconsin State Medical Society. At the time of his death Dr. Reeve was vice president of the First National Bank of Waupaca, member of the library board and the oldest Northwestern railway physician in Wisconsin.

Dr. L. H. Pelton, President of the Wisconsin State Medical Society, has appointed a committee composed of Drs. J. R. Barnett of Neenah, H. W. Abraham of Appleton, and G. M. Steele of Oshkosh, to draft appropriate resolutions to be spread upon the Society's record.

CORRESPONDENCE.

LODGE PRACTICE.

To the editor of the *Wisconsin Medical Journal*:

Within a few weeks the various lodges and societies of Milwaukee will again hold their annual meetings to elect some poor doctor to agree to treat each member for a whole year for the munificent sum of fifty cents. Would it do any good to have this disgraceful and dishonest practice denounced by the medical societies? Representatives from four different societies have called on me within the last two weeks, asking me to permit my name to be voted upon, and I have every time improved the opportunity to give them a good lecture upon the iniquity of the proposition and in each case closed the interview by telling them that any young doctor who will go into such a humiliating deal is in great danger of becoming a bungler, and that any old doctor who is willing to accept so shameful a price for his services is already a bungler ("Pfuscher") even if he be a college professor.

H. BLANK, M. D.

Milwaukee, Nov. 16th, 1906.

(We are in hearty accord with Dr. Blank. We have commented upon this matter on several occasions, and trust that the Milwaukee County Society will see fit to take early action defining its position. Editor).

THE STATE MEDICAL SOCIETY OF WISCONSIN.

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NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

ONEIDA COUNTY MEDICAL SOCIETY.

The Oneida County Medical Society met at Rhinelander, Oct. 24. A very interesting paper was read by Dr. J. M. Hagen on *Acute Gastro-Enteritis in Children.*

A carefully prepared paper on *Tetanus* was presented by Dr. C. A. Richards.

The Society will meet every month during the winter.

S. R. STONE, M. D., *Secretary.*

RACINE COUNTY MEDICAL SOCIETY.

The meeting of the Racine County Medical Society was held at Dr. R. W. McCracken's residence, Union Grove, October 18th.

Dr. McCracken presented two clinical cases, both interesting and instructive because of their clinical merit and unusual occurrence. One was a case of *Pernicious Anemia*, the other presumably *Adams-Stokes Disease.*

Dr. L. F. Jermain of Milwaukee read a comprehensive paper upon *Symptoms and Diagnosis of Aortic Aneurism.* This was a learned presentation of

the subject and it is hoped that it can be obtained for publication in the Wisconsin Medical Journal.

Dr. F. A. Malone of Waterford read a paper on *Diagnosis of Diseases of the Stomach.* Dr. Malone showed that the various clinical tests were easy of accomplishment and should be performed by every physician desirous of doing all to make a correct diagnosis.

In conclusion Dr. L. P. Valentine of Corliss read a paper on *Treatment of Disease of the Stomach.*

General discussion followed the several papers.

The business meeting followed, at which the committee appointed at the June meeting to investigate Contract and Club Practice presented the following resolutions:

Inasmuch as all forms of contract work known as Club Practice under conditions now existing in this county, will eventually prove to be detrimental professionally and financially, therefore, be it

Resolved, That this Society hereby expresses its disapproval of all forms of "Club Practice." And be it further

Resolved, That all members of the profession in this county be requested to refrain from making or renewing any contracts for this so-called "Club Practice."

Further: Inasmuch as the present method of bidding for county, city, and town work is undignified and unsatisfactory, generally resulting in injustice to one side or the other, be it further

Resolved, That all members of the profession in this county be requested to refrain from bidding for such work in any manner which does not provide for the payment of the usual and reasonable fees for the services rendered.

The business being completed, the members and visiting doctors repaired to Dr. McCracken's dining room, where an appetizing supper was awaiting them.

Dr. S. Windesheim of Kenosha, Councilor for the 2d District, was present, and Dr. W. C. Hensler, North Cape, and Dr. Geo. R. Frey of Burlington, attended the meeting.

The next meeting will be held at Racine in December.

C. A. OBERTIN, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

(Meeting of Oct. 23, 1906.)

Dr. W. F. Wegge presented a paper on *State Provision for Epileptics* which appears on another page of the JOURNAL together with the discussion.

Dr. H. M. Brown reported a case of interest from a medico-legal standpoint. The patient was a young woman who fell in getting off a street car. When seen immediately after the accident she complained of pain below the eye but showed no signs of injury. No symptoms of intra-cranial damage could be found. In a few minutes the pain left her, she left the office in good spirits and walked to the Public Library, a distance of about a mile. Here she began to vomit, became unconscious, and died while being carried to her home. An autopsy showed fracture of the skull, both vault and base, with slow hemorrhage.

In the discussion Dr. Wingate mentioned a similar case in which four or five hours elapsed before the onset of symptoms.

Dr. Brown also spoke of the anomalous position of the physician with regard to the Health Authorities. The present laws require the reporting of certain transmissible diseases and inflict a fine for failure to do so. On the other hand several cases have recently been decided in the courts in which physicians have been compelled to pay damages for reporting cases of this nature without the patient's consent, the plaintiffs claiming that damage had been done them by the reports.

H. E. DEARHOLT, M. D., *Secretary.*

The Medical Treatment of Gallstone Disease.—R. W. WILCOX, New York (*Journal A. M. A.*, August 4), maintains that gallstone disease is almost entirely a matter for the internist, and that surgery, though of great importance when it is indicated, has but a limited application in its treatment. This is primarily a hepatic disorder, he states, and the congestions and inflammations of the portal system, the infectious catarrhal conditions of the bile ducts and the faulty formation of bile in the liver are the things that need to be attended to, and these are purely medical matters. He reviews the etiology, the microbic infections of the bile ducts, the various conditions that give rise to venous portal congestion, the results that may follow the formation of calculi, their diagnosis, etc., and then discusses the treatment. The advantage of spa treatment is in the medical control in such places of the habits and diet, but practically as good results can be obtained at home. The diet should be a mixed one, the meals limited in amount, but at frequent intervals, to insure a constant flow of bile, with plenty of plain or feebly mineralized water at each. Alcohol should be prohibited. Exercise, especially out of doors, is important. Except salicylic acid and some salts, the bile, and especially the salts of bile acids, he doubts whether the so-called cholagogue drugs have more than a temporary effect. He prefers salicylic acid to the salicylates, because it is both a biliary and intestinal antiseptic, which the salicylates are not. Of the bile acid salts, sodium glychocholate in from ½ to 3-grain doses, as frequently as necesesary, is the best. He also speaks well of phenolphthalein as an efficient intestinal antiseptic, recommends it in combination; acid sodium oleate (carefully prepared), salicylic acid (from natural sources), each 1½ grain, phenolphthalein, 1 grain, Menthol ¼ grain, in a pill; this allays nausea, acts as an intestinal antiseptic and promotes peristisis. From four to eight of these pills in a glass of hot water once or twice daily, he says, have proved very efficient in 35 cases of gallstone disease. The elimination of the gallstones of the hepatic variety (bilirubin-calcium) is generally rapid. Painless elimination, he says, is best achieved by administering amyl valerianate (15 minims in capsule) two hours before breakfast and after supper. Two cases are reported.

THE WISCONSIN
MEDICAL JOURNAL

DECEMBER, 1906.

ORIGINAL ARTICLES.

PNEUMONIA—SOME CLINICAL CONSIDERATIONS.*

BY JULIUS NOER, M. D.,

STOUGHTON.

It is perhaps needless to state that this paper will deal only very briefly with certain phases of a very much discussed and a very much investigated problem. The main object is to bring out, if possible, the views of this society on the question of the cause, the treatment, preventive and curative, of the disease known to us as pneumonia.

We shall find, in all probability, that there exists a very wide variation of opinion as regards the cause and the management of this very common malady.

For clinical and teaching purposes it is convenient to classify pneumonias into: croupous, bronchial, aspiration, septic, embolic, hypostatic, syphilitic, etc. This is no doubt a great convenience, and it is usually possible to clinically demonstrate quite clearly each subdivision. It shows at once, however, that we are dealing with symptoms based at times upon anatomic considerations, and in other instances upon supposed causation or modes of infection. If modern views as to etiology and pathology are to be taken into consideration, it is clearly evident that this classification can be only misleading.

That a malady with so characteristic symptoms and so reasonably constant necropsy findings as is the case in typical croupous pneumonia, should be caused by a specific germ, seems reasonable. That it is an infectious disease, or the symptom of a systemic infectious disease, there can, it appears to me, be no question. That the specific cause is the diplococcus lanceolatus capsulatus, Fraenkel-Weichsel-

*Read before the 60th Annual Meeting of the State Medical Society of Wisconsin, Milwaukee, June 27, 1906.

baum, is possible, but not as yet definitely proven.(1) At any rate, if this pneumococcus is to be regarded as the specific cause, then it will be necessary to revise our texts very radically with reference to the nomenclature and symptomatology and the pathology of pneumonia.

As regards predisposition to the acquisition of the disease, all excesses which lower the resisting powers of the body are factors. My own experience certainly sustains the views of Aufrecht(2) that severe muscular exertion with subsequent exposure to temperature changes are important factors in the development of the disease. The disease is certainly very prevalent among the working classes and farmers who live mostly outdoors and are engaged in heavy labor.

The recent researches of J. Karcher (3), as well as those of H. Durch (4), and the very extensive investigations of the committee of the New York Department of Health(5), show that we harbor in our mouths and air passages an abundance of pathogenic bacteria that may produce infection, provided the tissues are injured sufficiently to so lower their vitality as to become a favorable soil for the growth of bacterial life. This injury may be traumatic, as e. g. the injury produced by particles of dust, or noxious gases inhaled, or it may be due, as shown by the experiments of Lode, in the Vienna Hygienic Institute(6), and earlier by Lipare(7), to the sudden lowering of the surface temperature of the body by cold.

If this is a fact, and it appears perfectly reasonable, then preventive measures must necessarily lie along the line of mouth and throat disinfection, together with the careful destruction of pneumonitic sputa during and for some weeks after attacks of pneumonia(8).

There can be no doubt that the "strenuous life" and alcoholism are important predisposing causes, and that they are two of the most important factors in the mortality statistics of the disease. If they could in some way be eliminated the control and treatment of the disease would be very much simplified.

Statistics with reference to the mortality and the methods of treatment of the disease are notoriously unreliable. They are not, however, necessarily always unreliable.

By reason of their interest from various points of view, I venture the quotation of a few of the findings of "A Report of a Series of 486 cases with 100 autopsies, of Acute Lobar Pneumonia at the Montreal General Hospital by Drs. McCrea, Fyske and Ainly, from January 1, 1895, to August, 1903."(9).

In this series of cases 60 per cent. terminated by crisis in 7.1 days, in 28 per cent. lysis began in 8.4 days. There was delayed reso-

lution in 9 cases, rusty sputa in 44 per cent., mania in 8 cases—all but one in children.

Albumen was found in 22 per cent. of the cases. Leucocytosis was present in 95 per cent. of 65 cases examined, the average in those who recovered being about the same as in those who died.

The clinical extent of lung involvement influenced the prognosis decidedly, those having an involvement of 3 lobes showing a mortality of 46 per cent. A bacteriologic examination of sixty cases showed pneumococcus infection in 65 per cent.—5 per cent. of which was mixed with other organisms; 20 per cent. were mixed infections of other kinds, while the streptococcus was the main agent in 8 per cent.

The average mortality was 21.2 per cent.; 71.6 per cent. were males and 28.4 per cent. were females. As regards treatment, 40 cases received practically no medical treatment. Hydrotherapy was used in 45 cases, expectorants in 1-3, medicinal analgesics (morphine, heroin, coal tar, etc.), in 1-10, ice and heat were used in ¼, stimulants in ¾, and venesection in one case.

The average age of those who died was 37.7 years, of those who recovered 35.5 years. Between the ages of 16 and 22 mortality was low, while after 40 the chances for recovery were very much lessened.

The autopsy findings in the 100 cases which were selected with a view to the exclusion of cases where pneumonia was secondary to some other disease, are of decided interest, especially if we compare clinical with necropsy findings.

Of these, 77 cases were males, 23 females, average age 38.8 years.

The lung involvement was as follows:

	Necropsy.	Clinical diag.
Right lung	43%	48%
Left lung	26%	30%
5 lobes	1%	1%
4 lobes	31%	31%
3 lobes	38%	38%
1 lobe	21%	40%

As regards complications, pleurisy was diagnosed clinically in 38 per cent., by necropsy in 98 per cent.; pericarditis diagnosed clinically in 3.4 per cent., by necropsy in 17 per cent.; endocarditis diagnosed clinically in 3 per cent., by necropsy in 8 per cent.

Special attention is directed to the following, namely: 1st. The liability of emigrants. 2d. The frequency with which people of outdoor occupations are attacked. 3d. The infrequency of rigor at the onset. 4th. The infrequency of enlargement of the spleen in pneumococcus infection.

As regards the treatment of pneumonia, it may be of some interest to enumerate a few of the different medicinal agents and therapeutic measures advocated at various periods in the history of the disease.

Venesection was used by Hippocrates and it was highly lauded by Sydenham and his school as a specific. Tartar emetic was brought out by Rasori and is still, I believe, in use by a few practitioners. Veratrin was introduced as a remedy for the disease by Aran and subsequently warmly advocated by Biermer, Koehler, and many others up to and including the present time. Pilocarpin was put into use by Sziklai, digitalis was used very early by Rasori and was revived again, though not without qualifications, by Traube, Petrosco, and others, in 1852. Quinine was employed by Cordon, Conigan, and was more recently warmly supported by Huss, Von Juergensen and G. Sei as an antipyretic in doses of 2 grams (30 grains), while Niemeyer advocated the use of iron. Liebermeister, Ziemssen, Brand and Baruch used the cold bath, while Thos. J. Mays more recently advocated the ice bag locally applied.

Iodine (Schwartz and Orth), sodium salicylate (Buckler), creosote (Casati), and other antiseptics have been extensively tried and have to-day many warm advocates.

Alcohol became a well recognized remedy for pneumonia through the influence of Todd, Hughes Bennett, Germain See, Von Juergensen and others. More recently, through the labors of Netter, Emmerich, Klemperer and others, curative sera have been introduced, and it would seem that it is through this means that a possible immunizing and curative remedy may be forthcoming, though the experiences up to date do not appear to be especially promising.

To those who are still employing arterial sedatives and systemic circulatory depressants in the treatment of pneumonia with the idea of curing or cutting short the course of the disease, I wish to be permitted to quote Talomon's comment on the use of tartar emetic (and he should have included veratrum). He says, "We diminish the chances of cure with its employment in that we complicate the disease with the effects of a fresh intoxicant."

The very fact that epidemics differ in severity, that the disease is usually easily manageable in people under 40, gives excellent opportunities for the publication of statistics showing a remarkably high percentage of recoveries under a given form of treatment.

There can be no doubt of the truth of the statement that the danger to life is the toxemia. ([10]) If this fact be steadfastly kept in mind in the adaptation of our treatment, precisely as we do in a case

of puerperal sepsis or typhoid fever, we will have a more favorable mortality rate. A large, quiet, well aired and ventilated room with a temperature not above 65° F., a competent, attentive nurse present at all times, with no visitors or meddlesome assistants, an abundant, nourishing, easily digestible diet, with reasonable but not excessive elimination through the bowels, skin and kidneys—are factors of more importance than the use or non-use of any particular form of drug medication in the vast majority of cases.

Where the opposite condition prevails, e. g., an overheated, badly ventilated room, with a meddlesome nurse, visitors and other disturbers of the mental peace of the patient, excessive clothing, hot heavy poultices, cotton jackets and other useless external applications, the chances for recovery are vastly lessened.

What are we to do in cases with a high temperature, say 104° F. or over, with a rapid, high tension pulse, delirium, etc.? A high temperature is not in itself necessarily dangerous nor does it always demand interference or reduction. If it must be reduced I believe that the safest means is the wet pack or cold sponge bath, with, if need be, the local application of the ice bag. Medicinal antipyretics are as a rule dangerous and irrational. A restless but not violently delirious patient in the early stage can usually be easily quieted by 4 to 8 grams of bromide of soda. The violently delirious patient in the early stage, with high tension pulse and high temperature, I bleed till he becomes quiet; this usually requires 4 to 8 ounces of blood. It quiets him because it drains him of some of the over-abundant toxines that are circulating in his blood. Bleeding is indicated here for precisely the same reason that it is in some cases of puerperal eclampsia, and it has exactly the same function—it relieves the excessive arterial tension and the toxemia. Venesection in the late stage when there is serious pulmonary obstruction and general venous stasis, has been in my experience uniformly disastrous.

What is to be done to sustain the heart? Are we not to use digitalis, strychnin, caffein, trinitrin, atropin, etc.? There are times when we must use some of these remedies, but their use must be governed by a knowledge of the physiologic action and therapeutic indication for their use. No one can lay down a hard and fast rule for the use of these remedies in pneumonia that will be practicable clinically. Their use must depend upon the good judgment, the scientific and the clinical knowledge and experience of the prescriber.

What about the use of alcoholics? As a rule they are, I think, contraindicated. The toper may require alcoholics to keep up his status of inebriety. Strychnin in full doses, with or without quinin

in tonic doses, will in most cases—even in the alcoholic—do better service as a tonic and stimulant to his nervous, muscular and circulatory systems.

Special care should be exercised in all cases at the time of crises, to sustain the patient. If alcoholics are at any time needed it is certainly at this time and until the system regains its equilibrium.

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Discussion.

DR. W. H. WASHBURN, of Milwaukee: In adopting any line of treatment of pneumonia, a few things ought to be kept very steadily in mind. In the first place pneumonia is a general infection. During the past three years I think this fact has been fairly well established by those men who have been conducting bacteriologic examinations of the blood in these cases, so that we have to deal with a general disease rather than a local one. Time was, not so very long ago, when it was supposed that the bacteria were not present in the blood except in the very severe and almost necessarily fatal cases, but we know now that as a general proposition the germs are in the blood at the outset. This is one of the facts that should be borne in mind in outlining any method of treatment.

The second is, that pneumonia is not a specific disease in the same sense that typhoid fever and diphtheria are. I mean by that to say that the disease is not caused by the same germ in every case. In one series of cases the micro-organism may be the micrococcus of Sternberg and Fraenckel; and in another series of cases it may be the micrococcus of Friedlaender or Klein, or the bacillus of Pfeifer, or the tubercle bacillus. Therefore no one line of treatment is to be adopted in lobar pneumonia. Efforts have been made to elaborate an antitoxic serum, and many manufacturing houses have spent much time and money in this endeavor, but without success; and I apprehend that the reason for this lack of success is the fact that I have just now

stated, that is, that the disease is not caused by the same germ in every instance, and therefore a serum antitoxic to the pneumococcus of Sternberg and Fraenckel would not produce much effect in a case caused by some other micro-organism.

I have had very little experience in the use of antitoxic sera, but a year ago used them in a number of cases with disappointing results.

As regards the use of alcohol as a cardiac stimulant in this disease, I think the generation of men who popularized the use of alcoholics for this purpose, is passing away. However, as with the abandonment of indiscriminate venesection in the treatment of pneumonia, the whole generation will have to pass away before it is abandoned entirely. The younger generation are not accustomed to the use of alcohol in the treatment of lobar pneumonia at all, I think, but are using instead actual cardiac stimulants, and especially strychnine.

As regards the treatment of delirium, I do not know that we have any firm foundation upon which to base a treatment. A good many of the patients who manifest delirium in the worst form are such as have been addicted to the overuse of alcoholics in some form or other. But the most violent delirium that I ever saw in a case of pneumonia was in a patient who was a teetotaler, and delirium did not occur until about the ninth or tenth day of the disease. Such cases as this have caused considerable discussion as to their proper treatment, and I think you will find in most of the text-books statements that morphia should not be used under these conditions. But when you are in the presence of a case of the kind you realize acutely that something must be done immediately, and the impulse to give morphine will be almost overwhelming.

I have only a word to add; in the cases I refer to I administered a hypodermic of morphia and had no reason to regret having done so; and I have seen a number of recent articles in the current literature of the same sort, especially referring to the text-book injunctions in regard to this matter, with the statement that no bad results have ever been observed from the use of it; and I do not think anyone need hesitate under such circumstances in giving morphia hypodermically.

DR. W. H. NEILSON, of Milwaukee: This paper has been very satisfactory as far as the etiology and pathology are concerned, and I think we are all agreed upon the disease being one of a general infection; but I think the majority of us would like to have something hard and fast to tie to when we are in the presence of a good hard case of pneumonia. The symptomatic treatment hardly satisfies. I, perhaps, am something of a crank on the treatment of pneumonia—at least in my method—but it has been a good thing for me to tie fast to, though it may not be a good thing for others; by following it I have had pretty good results. However, there is a gentleman from Stevens Point who has had much better results from his treatment, perhaps, which is somewhat different from mine, so I cannot brag very much about mine. However, I think a good deal of it, and it is as follows: from the time I diagnose pneumonia, or even from the time I suspect it, I begin with full doses of digitalis with acetate or citrate of potash. I think, if the gentlemen would adopt this method, they would not be obliged to use the ice bags or cold packs or anything of the kind. I find that I get along very com-

fortably with my patients in a majority of instances. I start out by giving a tablespoonful dose of officinal infusion of digitalis, adding a little citrate of potash or something of that kind. It is very seldom that I change the prescription throughout the case, and very seldom that I have to give strychnine or carbonate of ammonia or nitro-glycerine. It is very seldom indeed that I have any of these very severe and frightful forms of pneumonia that are written about. Of course there are cases in which the toxemia is so great that it seems that nothing will help, but I am speaking of those that we meet in our every day practice. I believe we ought to have something hard and fast to tie to. I do not believe in pottering along and giving a little of this and a little of that and trusting to nature to carry the patient through, because I do believe we can shorten the disease and make it much more tolerable to the patient by pursuing the treatment I advocate. At the same time I am not saying that there are not better methods of treatment.

REPORT OF A FEW SYPHILITIC CASES TREATED BY THE INTRAVENOUS INJECTIONS OF MERCURY.

BY WM. F. BERNART, M. D.,

CHICAGO.

In probably no disease does the rapidity of the results of treatment count for more than it does in syphilis. This is specially true when delicate structures are involved threatening the loss of sight, hearing, etc., or where violent ulcerations promise disfigurement and unremediable destruction, and even, in the earliest stages, a quick control is a safe guard against the infection of others. The ideal treatment is one that is positive in its results, free from pain and danger, non-interfering with home and business life, one that will take up the smallest amount of the patient's time, and with all this, be accurate, scientific, and absolutely certain of results, if results are still obtainable. In the method of administering mercury intravenously, the medical profession has a procedure which comes nearer to fulfilling all these qualifications than any other known method of administering this valuable drug. It alone, where active syphilis is the prime factor to be considered, will accomplish results in a shorter time than can be produced by any other known treatment or at any place. The only exceptions to this statement are cases where the veins cannot be utilized.

The best criterion of the value of any treatment is the citation of results in cases representing various stages of the disease, presented under different surroundings, circumstances and conditions.

Case 1. Syphilitic chancre.

Mr. ——, age 29 years. Noticed slight genital sore about two weeks after exposure. This was carefully examined at stated intervals until the sore was about three-eighth inch in diameter and showed a typical parchment induration. The chancre had by this time nearly reached its maturity and would probably have disappeared naturally, in a period of from four to six weeks longer. The sore being characteristic, a diagnosis of syphilis was made without awaiting secondary manifestations, and the patient was placed upon the bichloride of mercury intravenously; he received fifteen injections, each dose averaging 0.0125 grams (¼ grain). After the ninth treatment, the sore with the induration had entirely disappeared.

This shows the quick influence that this form of treatment has over the primary sore—a matter of great importance in many cases, especially if such cases are a source of danger to others. Besides this the quick reduction of such a characteristic sore is of more or less diagnostic value, for ordinarily a syphilitic chancre resolves rather slowly; therefore, the rapid disappearance substantiates the previous diagnosis.

Case 2. Secondary mascular eruption, very profuse over body, extremities and forehead, mucous patches in mouth and around rectum, beginning alopecia and marked adenopathy.

Mr. ——, age 37 years. This patient contracted the initial sore some eight or ten weeks previously. Throughout the last three weeks of this period he had been on a protracted spree, during which time all the early secondary manifestations developed luxuriantly. He was placed upon the intravenous injections of the bichlorid of mercury and was given twenty injections, averaging 0.016 grams (¼ grain) to each dose. After the tenth injection all the secondary symptoms, excepting the glandular enlargement, had disappeared; the hair, however, showed a slight moth eaten appearance, but all further shedding of same had ceased. After the twentieth injection most of the enlarged glands had been reduced, a few could still be felt.

As a rule an ordinarily well developed secondary eruption will disappear in from 20 to 40 days under the usual form of treatment. In the above case the secondary eruption was especially severe, covering practically his entire body and extremities. His dissipation undoubtedly assisted in the severe development. The eruption showed itself in its ascendency, therefore the normal fading that occurs in all cases after a lapse of time, was not a factor to assist in the obtaining of quick results in this case.

Case 3. Syphilitic ulceration of the throat, having destroyed the uvulae, posterior part of soft palate and the anterior pillars.

Mr. ——, age 24 years. Contracted syphilis 18 months previously, but neglected treatment. The above mentioned ulceration had about six weeks' start and had resisted all treatment, continuing its spread with great rapidity. Fifteen injections of the bichlorid of mercury given intravenously cured the lesion. The dose averaged 0.013 grams (¼ grain) daily.

Case 4. Ulcerating syphilitic paronychia of both little fingers and one thumb.

Mr. ——, age 35 years. Contracted syphilis two and one-half years previously. Had taken three weeks' inunction treatment at the start and then was placed upon a mixture of mercury and iodin, which he took continuously up to the time of first consulting me. At this time he presented a vesicular eruption over the entire body; this was diagnosed as an iodine eruption and he was advised to discontinue the use of this drug, with the result that the eruption soon disappeared. Within one month after this he developed an acute attack of jaundice which was overcome without the use of any anti-syphilitic remedies. Three months after stopping his anti-syphilitic medication, he returned presenting the above mentioned symptoms. This case was placed upon the intravenous injections of mercury, receiving 18 injections, each averaging 0.016 grams (¼ grain). After the sixth injection all active ulceration had ceased and pus could not be squeezed from the region of the matrix or from under the nail. After the twelfth injection, complete healing had taken place and but a red and slightly elevated ridge showed the site of the past inflammation. The nail of one of the little fingers was lost, but the final results were absolutely perfect. No iodin was given in this case because of the previous poisoning by this drug.

Case 5. Syphilitic ecthyma taking on a rupial character, of right arm. Ulceration about one inch in diameter.

Mr. ——. Contracted syphilis between four and five years previously. Treated by internal medication and inunctions of mercury for over three years. The above mentioned ulceration had existed for about two months. Was placed upon the daily intravenous injections of the bichlorid of mercury, each dose averaging 0.020 grams (⅓ grain). The ulceration was perfectly healed by fifteen treatments.

Case 6. Syphilitic ecthyma of face and neck, showing five violent ulcerations of these parts.

Mr. ——, age 27 years. Contracted lues seven years previously, followed by a fractional and indifferent treatment. Had but recently completed a course of mercurial inunctions and iodin internally, with no beneficial results. He was given the intravenous injections of the bichlorid of mercury, receiving 22 injections, averaging 0.013 grams (¼ grain) to each dose. All ulcerations were healed by the twenty-second day.

Cases 3, 4, 5 and 6, show conclusively what can be accomplished by this form of treatment in severe ulcerative lesions not preceded by a gummatous infiltration.

Case 7. Syphilitic gumma, size 1¾ by 1 inch, on outer surface of left leg, showing beginning necrosis at its apex. Another gumma ¾ inch in diameter on inner surface of lower third of right thigh.

Mr. ——. Contracted syphilis 4½ years previously. Treated for first four months by inunctions, followed by internal treatment until the end of the second year when four months was spent at Hot Springs, Ark. During third and fourth years alternated on a vegetable alterative (succus alterans) and the protiodid of mercury. At the time of consulting me, showed the

above mentioned symptoms which had been advancing in spite of the treatment. Was given the intravenous injections of the bichlorid of mercury, receiving eighteen injections in nineteen days, each dose averaging 0.020 grams (4/13 grains). After the fourteenth injection the small gumma of the thigh had entirely disappeared, after the nineteenth, the large gumma of the leg had been completely reduced, leaving but a small abrasion of the skin which healed without further treatment. No iodine was given.

The above case shows what can be accomplished by intravenous mercurical medication in typical non-ulcerating gummatous lesions and without the assistance of iodin. Statistics of other cases with typical gummata that have not ulcerated, show that this syphilitic manifestation can be controlled and eliminated on an average of from 18 to 25 days under the intravenous injections of mercury alone; if iodin is added to this treatment, the case will ordinarily show a gain of a few days. The peculiar feature of a non-ulcerating gumma is, that it does not respond as readily to a mercurial treatment as the gumma that shows marked ulceration and has but little purely gummatous tissue remaining. This may be accounted for theoretically, in that the unbroken or very slightly ulcerated gumma must depend for its absorption upon the slow reconstruction of the circulation, while the broken gumma is easily separated from the surrounding syphilized but vital tissue. The next case is cited to uphold this theory.

Case 8. Ulcerating syphilitic gumma, about the size of a walnut, situated immediately in front of the left ear, involving the tragus, lower and anterior part of the helix and upper portion of the lobule. The ulcerated surface extended over the anterior wall of the external auditory meatus and lapped over the tragus. The same structures of the right ear were involved, only the mass was about one-fifth as large as the other and the ulceration considerably smaller. Besides this, there was a large mass about half the size of a bantam's egg, one inch below the left ear; this was either a large gumma or a mass of adherent glands.

Mr. ——, age 28 years. Had genital sores 2½ years and 1 year previously, took internal mercurial treatment for a short period at each occurrence. The lack of definite information leaves undecided the time he contracted syphilis. Two months before consulting me he noticed the beginning of the above mentioned condition. During part of these two months he received anti-syphilitic treatment which had no influence over his lesions. He was given the intravenous injections of the bichlorid of mercury, receiving 16 injections in 21 days, each dose averaging 0.010 grams (⅙ grain). After the fifth injection the gummatous mass with the destroyed overlying skin seemed to loosen from its bed and with a pair of forceps, large portions were torn away. After the eighth injection all ulceration and dead tissue had separated, carrying with it a portion of the tragus and leaving a healthy granulating cavity nearly one inch in diameter and three-quarters of an inch

deep. The swelling under the ear had decreased by one-half, while all the swelling in the right ear had disappeared. After the tenth injection a moderately severe gingivitis developed and he was placed upon 10 grains of potassium iodid, three times a day, to assist elimination. An examination of the teeth showed them to be in very poor condition and coated with tartar. The small doses in this case were prompted by the exceedingly low weight of the patient, by a marked syphilitic cachexia and the quick reaction upon the gums; yet the doses were sufficiently large for a speedy and absolute control of the case. After the fifteenth day, the wound had granulated even with the surface and was practically healed a week later. The iodine was discontinued after one week's use.

This case demonstrates the complete "throwing off" of gummatous tissue that has been partly undermined by necrosis. Recent experiments have shown that inoculations from broken down tissue from gummata or other late lesions, are negative, but that positive inoculations can be made from typical tertiary lesions free from ulceration or where the inoculating material is taken from beyond the necrosed area. From this it may be reasonable to suppose that the devitalized tissues are free from active syphilis, but that in the immediate surrounding vital area the agent of syphilis is thriving and active; therefore, the intense and exceedingly rapid action of mercury obtained by giving this drug intravenously, so speedily overcomes active syphilis in this surrounding vital area that an adhering mass of far lesser vitality and practically dead from malnutrition and secondary germ infection, is enucleated by a clean cut line of demarcation.

Case 9. Ulceration, 2 by 1½ inches in diameter, of several weeks' standing, due to partial destruction of a gumma. Location, upper portion of right calf. Two minor ulcerations in immediate vicinity from a similar cause.

Mr. ——, age 27 years. Contracted syphilis five years previously. Adhered to internal treatment for about 2½ years after which all medication was stopped. Gumma first noticed about three months before consulting me. This patient was inclined to dissipate and paid but little attention to his condition until the size of the ulceration became alarming and interfered with his routine pleasures. Was placed upon the intravenous injections of the bichlorid of mercury, receiving 20 treatments, each dose averaging 0.016 grams (¼ grain). Throughout this course he was given all the so-called natural advantages at Hot Springs, Ark., and to grant him full satisfaction, in accordance to the routine of the place, he was also given 1 gram (15 grains) of potassium iodin three times a day. After the tenth injection, all ulcerations were granulating nicely and by the twentieth were healed.

Although this case received moderate doses of iodid and the advantage of baths, fresh air, etc., results were not obtained any faster than if mercury had been given alone and under home conditions. My statistics cited in a recent article* fully substantiate this statement.

*Chicago Medical Recorder, October, 1906.

Case 10. Ulceration of left shin, evidently due to the breaking down of a gummatous infiltration.

Mr. ——, age 48 years. No definite history obtainable. Was placed upon the intravenous injections of the bichlorid of mercury, receiving 21 injections, each averaging 0.013 grams (¼ grain), and internally upon ascending doses of potassium iodid up to 8.32 grams (125. grains) three times a day, receiving throughout the course the advantages of the baths, etc., at Hot Springs. The wound was practically healed in 23 days.

This case shows that even with the assistance of large doses of iodid, no more rapid improvement was obtained than could have been gotten from mercury alone.

Cass 7, 8, 9 and 10 are fair examples of what the intravenous injections of mercury, alone or assisted, will accomplish in gummata or lesions following same. An average of my unpublished statistics shows that cases presenting unbroken gummata of the surface tissues or gummata of internal organs, respond more slowly when placed upon mercury alone, than when iodin is added. The reason for this I mentioned before, namely, that the entire absorption and elimination of the mass follows the slow reconstruction of the seriously affected blood vessels.

Case 11. Syphilitic involvement of the right eye. Considerable conjunctival inflammation and chemosis, great ciliary congestion, cornea slightly dull, iris level and slightly faded, pupil somewhat contracted and limited in motion, several posterior synechiæ, and very severe pain, especially at night.

Mr. ——, age 50 years. Contracted lues about six months previously. During last two months had moderate inflammation of right eye, which developed very markedly during the last two or three weeks of this time, presenting the above condition at the time of consultation. His nocturnal headaches precluded all possibility of sleep until the morning hours. The diagnosis of this case was made, and the local eye treatment was conducted by Dr. H. W. Allport of this city, to whom I am indebted for the report of exact conditions. This patient was placed upon the bichlorid of mercury intravenously, receiving 18 treatments in 20 days, each dose averaging 0.019 grams (⅓ grain). After the fourth injection all pain ceased and the patient rested comfortably throughout the night. After the eighth injection the eye was practically normal and could be used without inconvenience.

In a previous publication,* I made a statement to th ceffect that the endovenous injections of the bichlorid of mercury exerted a most marked beneficial influence over syphilitic inflammations of the eye, an influence which cannot be as readily obtained under any other known treatment.

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*Chicago Medical Recorder, April, 1906.

Case 12. Syphilitic pachymeningitis, manifested by moderate headache and neuralgia, thick speech, depreciation of mental powers, insomnia, vertigo, and rather sluggish and inaccurate movements, besides this, there was a consolidation down to second rib, of the upper portion of right lung.

Mr. ——, age 37 years. Contracted syphilis four years previously. Adhered to internal treatment about 2½ years. The above condition developed slowly so its first starting was unnoticed. Well developed symptoms had been present for about one month. This patient was given the bichlorid of mercury intravenously and moderate doses of potassium iodid internally. He received 22 injections, each averaging 0.013 grams (¼ grain). After the fifteenth treatment, no lung consolidation could be found. After the twentieth injection, all other symptoms had nearly disappeared, doing so completely inside of ten days more. This patient was instructed not to neglect further treatment, but the exact contrary to these instructions was followed. About sixteen months after completing this course, he developed a partial ptosis of left eyelid. For this he took a course of the intramuscular injections of mercury with moderately large doses of iodid internally; this course was given by another physician. The treatment probably was not sufficiently intense, as the results were only moderate. The case again came under my care, ten months after the appearance of the ptosis, and the condition was as severe as it had ever been. He was given another course of the intravenous injections of mercury bichlorid, averaging 0.013 grams (¼ grain) per dose; along with this was given 10 grains of iodo-nucleoid three times a day. At the end of the course the dropping of the eyelid was practically nil. There was, however, a retardation of motion when glancing quickly upward; during deliberate motion but little difference was noted.

Cases of paralysis, locomotor ataxia and paresis, will not be cited, but it can be positively stated that if active syphilis is still a concomitant factor to be considered, no other known treatment will show this as rapidly as the intravenous injections of mercury, augmented by the judicious use of iodin in occasional cases. Again, if these so-called para-syphilitic cases are taken in their very incipiency, good results can be expected. The great hindrance to acceptable records of results obtained from treatment in incipient cases is, that the diagnosis is too frequently questioned; of whatever opposition this may be, it is counterbalanced by the fact that such cases, if put upon an intensive treatment, do not show a continuation or increase of the symptoms which prompted the diagnosis.

The above cases, which were taken as fair average examples, show conclusively what can be expected from an intravenous mercurial medication when active syphilis is the factor to be overcome. These cases were chosen for this report because they showed a rather distinct division; however, the same ideal results can be obtained in cases presenting a greater variety of lesions or more complex symptoms.

SPINA BIFIDA.*

BY MILTON M. SPITZ, M. D.,
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Spina bifida, or split spine, is a congenital malformation of the spine, depending on a defect in the closure of the vertebral arches. This usually leads to the protrusion of the spinal membranes as a sac, forming an external tumor, into which the lower part of the spinal cord often extends, normal or variously altered in conformation.

This condition is a not infrequent defect, since it is noted in one in about 800 births.

With spina bifida other deformities are frequently associated, the most common being club-foot, hare-lip, cleft palate, hydrocephalus and more rarely ventral hernia, imperforate anus and cerebral meningocele.

A vertebra develops from four primary centers: two for the body which make their appearance at the eighth week of fetal life, and one for each lamina, appearing at the sixth week. If the laminæ fail to unite in the median line, a gap in the bony structure of the spine exists through which the cord and its membranes may protrude, forming a tumor on the back.

According to Humphrey, spina bifida is due to an early failure in development in most cases before the cord is segmented from the epiblastic layer, from which it is developed. Hence, it remains adherent to the epiblastic covering and the structures which should be formed between the cord and the skin are undeveloped. For this reason we have in the wall of the sac, nerves, meninges, vertebral arches, muscles and integument. If the error in development occurs later, the cord and nerves may be attached to the sac, but not intimately fused with it; in still other cases, the cord does not enter the sac at all. The malformation may occur before the central canal of the spinal cord is closed, or if closed, it may reopen from the accumulation of fluid. It is probable that the accumulation of fluid occurs first and that this prevents the union of the parts of the vertebral arches.

Occasionally, but very rarely, there is a failure to unite between the two halves of the body of a vertebra, and in this way an anterior spina bifida may result. Now and then, there is a defect in one or more vertebræ without protrusion of the membranes or cord, and we have what is called spina bifida occulta, as there is no tumor to be seen.

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*Read before the Milwaukee County Medical Society, Oct. 12, 1906.

The etilogy of disturbances of development is unknown. Amniotic bands do not explain all the cases. Hereditary influence is sometimes a factor. Holt reports having seen two successive children in the same family with this affection, and Wolfe reports two children of the same parents afflicted. Female children are oftener affected than males.

Spina bifida may appear in any region of the spine but is much more common in the lumbar and sacral segments, this being due to the fact that the laminæ here are the last to solidify. The cervical and dorsal regions are next in frequency. Statistics show that about 23 per cent. are sacral, 34 per cent. lumbar, 29 per cent. lumbo-sacral, 4½ per cent dorsal and 9½ per cent. cervical.

There are three recognized classes of spina bifida, divided according to the character of the contents of the sac. If the membranes of the cord alone protrude through the opening in the arches, the tumor is called a meningocele. If both the membranes and the cord are involved, it is termed a meningo-myelocele. The third form is that in which the fluid is in the central spinal canal and the inner lining of the sac is formed by the meninges and thinned out spinal cord, and is known as syringo-myelocele.

The first two forms are the most common. In meningocele the accumulation of the fluid is in the subarachnoid space posterior to the cord. The opening of communication between the tumor and the spinal canal is small, usually being about one-twelfth to one-sixth of an inch in diameter. There may, however, be no communication.

In meningo-myelocele the cord is contained in the sac and usually forms a part of its wall. The usual relation of the parts in this form is for the cord to run horizontally across the upper part of the tumor to the center with which it becomes blended and from which again the nerves arise. These re-enter the canal at the lower part of the tumor and are distributed below as usual. In other cases, the cord joins the wall of the sac soon after its entrance, and its attenuated fibres are found spread all over the sac coming together again below and entering the spinal canal. In syringo-myelocele, the accumulation of fluid being in the central canal of the cord, the lining of the sac is composed of the attentuated and atrophied cord elements.

The symptoms vary according to the form present. In all varieties, except the occulta form, a tumor is present at birth and is most frequently situated just above the sacrum. In meningocele the tumor is usually globular, sometimes pedunculated, and varies in size from a walnut to the size of a fetal head. The skin covering it is generally fully developed. Spontaneous rupture is not likely to occur in this

form and it does not become infected except by operative interference. Disturbances of function, such as motor paralysis or sphincter involvement, are rare.

Meningo-myelocele is the most frequent variety, occurring in 35 out of 57 cases reported by Demme and in 62 per cent. of the cases reported by the London Clinical Society. The tumor is smaller than in meningocele, is sessile and never pedunculated. As a rule it is only partly covered by skin, but has a central area, where there is only a thin translucent membrane. This surface is sometimes covered with granulations and frequently ulcerates. Where the sac wall is very thin, rupture is pretty certain to take place, either spontaneously or by some accident, and in the course of the first few months, death then results from convulsions owing to the rapid draining away of the cerebro-spinal fluid, or from secondary infection. In a large number of cases, death is due to marasmus dependent upon the associated condition, these patients being feeble, badly nourished and poorly developed mentally.

There is in most cases a direct communication between the tumor and the lateral ventricles of the brain. In this form as well as in syringo-myelocele, pressure upon the swelling is found to diminish its size and to increase the tension of the anterior fontanelle and possibly to cause convulsions or stupor. Crying, coughing or pressure upon the anterior fontanelle makes the tumor more tense. The action of gravitation can also be seen at times, the child's head swelling when it is laid down and the spinal tumor growing larger when the child is placed upright. Paraplegia occurs in half of the cases, sometimes with anesthesia, and paralysis of the vesical and rectal sphincters occurs in the larger number of cases. Trophic disturbances are not uncommon—such as decubitus, chronic perforating ulcer in the feet and chronic changes in the tarsal and metatarsal bones. The loss of the patellar reflex has been noted by many observers. The association of double talipes equino-varus with this variety is very frequent.

Except in rare cases, it is by no means easy to make an absolute diagnosis as to the kind of tumor present. A differential diagnosis is not only of great importance as far as the prognosis is concerned, but also on account of the treatment. A simple meningocele generally is diagnosed by the absence of a palpable fissure in the spine, perfect translucency of the mass, a pedunculated growth with as a rule no symptoms of paralysis.

A meningo-myelocele on the other hand shows a palpable bony fissure, a sessile tumor, marked involvement of the sphincters, with paralysis and atrophy of the lower extremities, and in the majority

of cases a large central cicatrix over the mass. The co-existence of hydrocephalus points to syringo-myelia.

The condition of spina bifida occulta is apt to be overlooked and should always be suspected in persons with congenital disturbance of function over the lower limbs, especially if associated with imperfect control of the bladder and rectum. If there is a hairy patch on the spine, the probabilities of this form being present are greatly increased.

The prognosis depends chiefly upon the anatomical variety and the existence of complications. The prognosis is best for simple meningocele. In this form patients may live to adult life. It has the best chance for natural recovery and in it operation gives the best results. In all other forms, the outlook without operation in very grave. A very large percentage of them die early from leakage of cerebro-spinal fluid and from meningitis. The prognosis with operation is not so good as we could wish, while both as to mortality and to end results, it naturally varies with the character of the tumor, the age of the patient, and the operation.

In large sized tumors with thin septic coverings and complicating hydrocephalus, in all cases of syringo-myelia and in most cases of meningo-myelocele with paralytic complications, the danger of death following operation is great and the end results are unsatisfactory.

Broca reports a case of spina bifida that reached 43 years of age. Robson operated upon one 35 years old. Of 647 cases of this affection that died in England in 1882, 615 were under one year of age.

Radical operation is indicated in all cases in which energetic treatment is necessary, although occasionally one will be obliged to resort to the older less radical procedures. In cases with very little prominence of the sac, one may endeavor to prevent any increase in the size of the hernia by using a soft pad, always remembering, however, that the thin overlying skin is very liable to ulcerate and that an ulcer in this situation is of grave significance, because perforation of the sac may be followed by death or at least make an aseptic operation impossible. Only cases that project very slightly and that are covered with normal well nourished skin are adapted to this sort of treatment. This pad may be made of gauze and fastened to the body by means of a piece of adhesive plaster. In this way, it will be determined whether the pressure of the pad is well borne. If this is the case, a metal pad lined with some soft material may be fastened around the body by means of straps.

Aspiration of the sac is a palliative measure because it removes the pressure and lessens the danger of rupture when for some reason or other radical operation is contra-indicated. The danger of this

method consists in lowering the pressure too rapidly, which may be followed by sudden death. The patients according to Leyden should always be kept lying down during aspiration and for some time afterward.

There is also danger that the puncture-wound may not heal and that the cerebro-spinal fluid may continue to leak and moisten the bandages, which become infected and are thus the cause of meningitis. This danger is best avoided by choosing the base of the mass for aspiration, and not the region of the sac, which is covered only by a very thin layer of skin. The needle used should be as small as possible and be introduced diagonally, so that the canal is comparatively long and may be compressed from without or by increased pressure within the sac, just as in the case of the ureter by a filled bladder. The result of aspiration aside from very few exceptions is negative.

Aspiration has been combined with injections of iodine that are supposed to set up sufficient inflammation to produce a cure.

Brainerd treated a series of cases with iodine and noted improvement in some and permanent cure in others. Morton's solution of iodine and glycerine is said to be less irritating and equally efficient. Morton removed a few cubic centimeters of cerebro-spinal fluid and injected 2 to 7½ c.c. of a solution consisting of one part of iodine, two parts of potassium iodide and fifty parts of glycerine, through a lateral puncture. Sometimes it was necessary to repeat the injection, although a third injection was rarely indicated. He reports 80 per cent. of cures and 20 per cent. of deaths.

The London Clinical Society reports, out of 71 cases, 35 cures or 49 per cent., and 27 deaths, a mortality of 38 per cent. This same report shows that aspiration itself was the cause of death 30 times in 46 cases. The results of the injection treatment are not ideal, but the method may be resorted to when a radical operation is contra-indicated.

Radical operation is without doubt the most sensible method of treatment. One should always recognize the contents of the sac, and any nerve tissue that is capable of function should be preserved.

It is not my intention in this paper to discuss the various radical surgical methods for relieving spina bifida, but instead, I will cite the experiences and results of various operators. These facts are gathered from an analysis of all the cases treated by operation and on file in the Index Catalogue of the Library of the Surgeon General's Office in Washington, and are from every civilized people on the globe. They begin with a case reported by an American surgeon, H. H. Sherwood, in 1813, and end with cases reported in 1905. There were 67 articles with report of cases by injection of iodine, but this treatment has been practically abandoned as dangerous and unsurgical. There are 190 articles in which 378 cases treated by excision are reported.

In this series of cases, there were 23 per cent. of complications

quite evenly divided between paralysis, club-foot and hydrocephalus, and in many cases all these complications were present. In one single case the club-foot was reported improved, in one case incontinence was reported cured and in two cases improved, but in all other cases, there was absolutely no improvement. To counterbalance this one case cured and three improved, several cases of paresis and incontinence developed following the operation, presumably due to injury to the nerves and cord.

The age at which operation was performed showed the most decided bearing upon the mortality. Of those operated upon within the first few months of life, the mortality was over 35 per cent., while in those operated upon when five or more years old the mortality was but 4.7 per cent. Of course, this difference can be largely accounted for from the fact that the patients living five years or more were not bad cases and were good subjects for operation, but it raises the question whether it is really worth while to operate upon these patients early.

In 1895 Hanssen reported 150 cases from the literature treated by excision during the aseptic period, with 27 per cent. mortality. In the cases here reported, the average mortality was 27 per cent. In those operated before 1885 the mortality was 30 per cent., and in those operated during and after 1885, it was 24 per cent. There was a reported mortality of 7 per cent. within three months after operation, which would make the real average mortality 34 per cent. If all cases had been followed and reported, the probability is that the mortality at the time of and a few months subsequent to operation would be fully 50 per cent.

Bayer in 1892 reported 14 cases and claimed that surgical interference was admissible even in cases where the terminal filaments of the cord and nerves are attached to the sac wall, because they can be successfully dissected off and returned to the canal, and in paralytic cases because they are otherwise doomed to die of meningitis; but in 1897, he reports three additional cases and concludes that 59 per cent. of patients operated upon for spina bifida will die sooner or later, and he will operate in the future under the following conditions only: 1. When there is no decided hydrocephalus; 2. When there is no paralysis; 3. When clinically no complications are to be expected in the sac.

In 1893 Hildebrand reported 13 cases operated on in König's clinic, and concludes that most syringo-myeloceles and meningo-myeloceles and cases complicated by irreparable deformities and severe paralysis should not be operated upon.

Sachlaben in 1902 reports 30 cases occurring in Mikulicz's clinic, of which 18 were operated upon. Of these 18, six died and twelve were locally cured, but only five completely cured. Of the twelve cured locally, six died between 3½ months and one year after operation. These were cases complicated with paralysis or hydrocephalus. The five permanently cured were simple meningoceles.

Broca in 1895 reports several cases and concludes that operation is not advisable. Mayo Robson in 1895 reports 20 operations with a mortality of 30 per cent. He advised operation in all cases except

where the tumor is so small that operation is evidently not needed, and where there is a large fissure, marked hydrocephalus and paralysis.

The only indications to be met in an operation for spina bifida are the removal of the sac and the closure of the cleft, and the simplest technic is the best.

A careful study of these reported cases illustrating the experience of so many surgeons caused Moore to make the following conclusions:

1. Operation upon children of very tender age is scarcely worth while, because it is accompanied by so large a mortality rate and because it does not stop the progress of progressing cases.

2. Patients five or more years old can be operated upon safely.

3. Patients with large or rapidly growing tumors, with hydrocephalus and with paralysis or deformities of the extremities, are not cured.

Finally, all we can hope to accomplish by operation is to relieve the patient of an unsightly and annoying tumor after he has survived the dangers of the affliction itself.

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THE BENEFITS OF MODERN THERAPEUTICS.*

BY S. R. MOYER, M. D.

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I will not attempt to enter into a detailed account of the many superior benefits derived from the modern treatment of diseases. I am convinced, however, that a few moments devoted to the discussion of a subject, of this kind, in a general way, here at our annual gathering, will be time well spent. I am also, however, aware that to the constant and eager searchers after the new and thrilling, my subject

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and paper will be somewhat tedious and disappointing, as I have nothing new to bring before you. I simply wish to refer briefly to a few of the many therapeutic advances that have been made during recent years.

Notwithstanding our extraordinary progress in everything pertaining to the art and science of medicine, we still meet with those who are inclined to take a pessimistic view of our present-day therapeutics, and lament that this branch of medicine has not progressed in proportion to the other branches, and that sufficient interest is not being taken in its development.

While it is true that a somewhat melancholy view concerning the progress made in therapeutics during former years—say up to as recently as a decade ago—was undoubtedly correct, it certainly does not apply to the degree of attention given to the treatment of diseases at the present day. As long as the profession depended almost solely on the use of drugs for the cure of diseases the results were far from satisfactory. At the present day, however, we are making the most practical application of many therapeutic agents other than drugs and find them of the utmost benefit. And besides, the profession recognizes more than ever that more can be accomplished for the benefit of suffering humanity by the judicious application of preventive medicine than from all our painstaking efforts to heal. Indeed, the main trend of progress during recent years has been along the lines of preventive medicine, so that mankind is reaping a far greater benefit from the combined and unselfish endeavors of the medical profession in preventing the spread of contagious and infectious diseases than from our ability to cure.

When we stop to consider the many beneficent measures for the alleviation of suffering and the cure and prevention of disease that have been perfected during the few years since the beginning of this century, and the encouraging prospects we have for greater discoveries in the future, we cannot help but realize that we are living in an era of great therapeutic advancement, and that the old-time and once popular therapeutic nihilist or pessimist has no place in modern medicine.

If we are asked the question—what advantages do the modern therapeutic measures afford the general practitioner in treating the common every-day diseases that come under his care?—we can answer —much, in every way. Since the development of the germ theory and the new science of bacteriology, and our better knowledge of the cause of diseases, we are not only able to prescribe the medicinal remedies handed down to us by our medical forefathers in a more rational and

scientific manner, but we are having placed in our hands many reliable curative and preventive agents never dreamed of by our predecessors.

It would require too much time to refer to the many therapeutic innovations that have been made during recent years; therefore I will briefly allude to only a few of the most prominent discoveries that afford the most conclusive evidence that the art and science of curing, alleviating and preventing human suffering is not being neglected.

In recounting the therapeutic progress that has been made during recent years it has become customary to speak first of the beneficent results of serum therapy of which the use of antitoxin in diphtheria is, so far, the most practical example. The benefit already derived from this comparatively new therapeutic agent cannot be overestimated. And the greater benefit that will result from the further development of the principle involved is as yet, only partly realized. But serum therapy, of which our fathers never dreamed, has already been the means of saving many thousands of lives that otherwise would have perished.

Perhaps mankind is receiving no greater benefit from modern methods of treating any one disease than it does from the modern treatment of tuberculosis.

Imagine the astonishment of a medical practitioner, who—had he gone into traditional Rip Van Winkle sleep at any time half a decade or so ago—was about to experience his awakening amid the scenes of a modern tent colony for the cure of tuberculosis. The change, to him, in the treatment of this disease would be startling and completely beyond his comprehension. The patients who in his day were considered hopeless, and who were confined in warm overheated rooms for fear of "catching their death" from cold, and as a matter of routine were dosed with large quantities of cod-liver oil, he would find getting well on nothing but pure air, exercise and good food.

How many of us believed only a very few years ago that tuberculosis was a curable as well as a preventable disease, or that it was otherwise transmissible than by heredity? Today no one denies the infectiousness of tuberculosis or that it is amenable to treatment. Not only can we now hold out hope to those already suffering from the malady, but we can confidently expect that at no distant day the disease can be entirely eradicated. Much, however, remains to be accomplished to increase popular knowledge concerning the proper methods of procedure against the insidious invasion of this enemy of mankind. In no other direction, however, are greater efforts being put forth than in educating and enlightening the public in regard to

the prevention and treatment of tuberculosis. The results obtained from the modern treatment of this disease, though as yet on the very threshold of its beginning, have already been of inestimable benefit. By our strenuous efforts along the line of prevention and treatment the number of cases suffering from the malady have already been greatly reduced, and the death rate greatly diminished. It is within the memory of the youngest of us here that our ideas regarding the etiology and treatment not only of tuberculosis but of all the contagious and infectious diseases, were as those who see through a glass darkly. Indeed it is very recently that we have been enlightened as to the cause of yellow fever and the mode of its dissemination. And we are already absolutely certain that we can prevent the spread of this epidemic disease by suppressing the carrier of the virus, and we point with pride to the practical demonstration of this grand achievement of American medicine given us during the epidemic at New Orleans last year. The results obtained from the modern treatment of this disease were considered impossible a very few years ago, and they encouraged the hope that at no distant day we will be able to control all epidemic diseases. Who would have thought, a few years ago, that the time would ever come when it would be possible to treat a yellow fever patient in the wards of a general hospital, side by side with patients suffering from other diseases, without fear of spreading the infection as is being done in the hospitals of Panama to-day? The only additional precaution necessary is to cover the bed of the patient with a wire screen cage to keep the mosquitoes away until the infectious period of the disease is past. This is indeed a grand triumph for modern medicine, and the greatest honor is due those painstaking searchers after scientific truth, who at the risk of their lives conducted the experiments necessary to obtain this valuable information.

In addition to the modern therapeutic innovations of the specific serums, fresh air and prevention in treating tuberculosis, and the successful treatment and prevention of yellow fever, malaria and other infectious diseases, the practitioner of today has the benefit of other curative agents unknown a decade or so ago. I allude to the X-Ray in the treatment of malignant diseases; to the benefits of thyroid medication and organotherapy in general, to the many uses of suprarenal extract, to the great improvements in hydrotherapy and electrotherapy, and the like. In addition to these newer agents we have other modern measures of applied therapeutics which have recently been perfected and which give us an increased confidence in our ability to cure, such as scientific nursing, better attention to diet, judicious rectal feeding, stomach lavage, etc., and the thorough application in the sick

room of the laws of hygiene, and the proper use of disinfectants and antiseptics, all of which add to the comfort of the patient, thereby acting as curative agents tending to aid recovery.

I will not attempt to refer to the therapeutic advantages derived from the long list of new remedies of a purely medicinal nature that have been brought to the notice of the profession during recent years. Nor do I wish to discuss the merits of the vast number of proprietary preparations, both ethical and otherwise, that have of late so greatly disturbed the medical profession, further than to say that most of them are absolutely worthless. We have for a long time been afflicted and over-burdened with a plethora of medicinal remedies, and in the light of recent developments regarding the composition of many of them, we must conclude that much of our prescribing has been futile and unscientific. I am convinced that much better results would follow the average general practitioner's attempts at drug medication did he confine himself to fewer remedies with a more thorough knowledge of their physiological action and therapeutic indications. The conditions that can be met by medicinal interference in disease are after all comparatively few, and after sifting the wheat from the chaff among the large number of remedies that have recently been crowded upon us, we find that the really necessary and practical ones are few indeed. A well known author and very successful internist of large experience has again recently stated that out of a list not to exceed thirty well known remedies he could give his therapeutic abilities the widest scope. It certainly stands to reason that a few well understood drugs in the hands of the careful physician, like a few familiar instruments in the hands of the skilled surgeon, will serve a far better purpose than many remedies or many instruments of the purpose or use of which we have only a smattering knowledge.

But notwithstanding all our boasted progress in therapeutics during recent years, the medical profession must plead guilty to the charge of having prescribed millions of dollars' worth of unscientific preparations for no other reason than that it is an easy way to practice medicine—preparations, even the very composition of which we were wholly ignorant, and of whose therapeutic value we knew absolutely nothing save what was told us by the glib detail man who sold us the goods, or which we learned from some seductive article in a fake medical journal or from the literature sent out by the manufacturer who made the goods. That a body of professional men who have taken a course in scientific medicine at some recognized medical college should so far forget their scientific training as to be led astray by the therapeutic counterfeits of commercial firms who have something to sell,

seems almost incredible, and it forms a chapter in the history of modern medicine that will stand as a reproach to our boasted progress.

But, fortunately, the spirit of reform now abroad in the land is also taking hold of the medical profession, and it is already apparent that much benefit will be derived from the general agitation and crusade against the evil of nostrum vending and the haphazard prescribing of unscientific remedies. That a great reformation is needed in this line no one will deny; and a little more wielding of the muckrake along this line, will surely bring some benefit. Much credit is due the American Medical Association and its ably edited Journal for having taken the initiative in enlightening the profession and the necessary steps to analyze and investigate the merits of the manufactured products sold to physicians. The work of the council on pharmacy and chemistry has already done much to open our eyes and we trust the good work will continue in spite of the fierce opposition from certain not wholly disinterested sources. It is greatly to be regretted that the medical press as a whole and the medical profession in general do not take more kindly to this general shaking up of things and render more efficient aid to the attitude taken by our association and Journal.

To what extent the attempt to educate the laity regarding the fraud in patent medicines and the harmfulness of self-drugging will benefit the public is hard to predict. It was Barnum who years ago discovered that the American people rather delighted in being humbugged, and I am afraid it is even so today. I think it is safe to predict, however, that if the time ever comes when patent medicines will have lost their repute, and Eddyism and Dowieism and other isms their fascination, there will still be a goodly number who will take up with some other humbugopathy in preference to scientific medicine. But the move to educate the public is certainly in the right direction, and much credit is due to the few lay journals for their courageous step in publishing the facts and so effectually exposing the sins of the patent medicine business, and we trust their efforts will not be barren of results.

But for the most important as well as the most practical and beneficial curative measures that have been devised and perfected during recent years the credit must be accorded to modern surgery. Surgery has ever been the handmaid of medicine, but since the art has been so completely revolutionized and widened in its scope it has become its chief therapeutic reliance. In many disorders that formerly belonged exclusively to the domain of internal medicine the general practitioner has learned to turn to the surgeon for help and usually

has no cause to regret his judgment to interfere. The surgeons of the present day can do safely and successfully many things that could not be accomplished a few years ago, and the practitioner of today can with a clear conscience recommend surgical interference for many diseases that formerly were considered not to be undertaken. In fact, the benefit of modern operative surgery as a curative measure cannot be overestimated. And to the credit of the medical men be it said they have not been slow to recognize and rightfully acknowledge the superior helpfulness of surgery. And, fortunately, the vital questions so long in dispute as to the class of cases to be sent to the operating table, are also being rapidly solved. The medical men more thoroughly comprehend the limitations of medicine and more fully recognize the possibilities of surgery, and the surgeons have become more practical and reliable in their work, especially since they have abandoned many fad operations that were not only useless but positively dangerous and often followed by untoward consequences. Since the surgeons have become more conservative and the medical men better able to recognize the class of cases wherein surgical interference is the only remedy, many thousands of lives are being saved that formerly were allowed to perish for want of proper treatment.

I will not attempt to enumerate the many diseases that are promptly and permanently cured by a surgical operation. Of the extraordinary therapeutic benefits of modern surgery in diseases of the abdomen, especially the appendix, gall-bladder and stomach, and those of the pelvis, the pleura, pericardium and brain, you are all familiar. I only wish to add that since the number of diseases that must be treated surgically has become greater the responsibility of the general practitioner has become greater. The family physician to whom most patients first apply for treatment or advice must now be able to diagnose with an exactness and precision not realized in the past. In no department of medicine is there greater need for good judgment, carefulness and accuracy than in the diagnosing of surgical affections, especially in acute abdominal disorders that call for early surgical interference. The general practitioner can no longer be merely a passive spectator by the bedside while the disease runs rampant, or waste valuable time with futile attempts at drug medication when nothing but a prompt surgical operation will save the life of the patient. Therefore, if the practitioner of today who assumes the important role of family physician, does not feel proficient in the diagnosing of surgical affections, he should realize his responsibility and hasten to take the necessary steps to render himself thoroughly familiar with the symptomatology, diagnosis and treatment of such diseases, so that the incalculable benefits to be derived from the life saving measures of modern surgery may be more universally realized.

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Vol. V. DECEMBER, 1906. No. 7

EDITORIAL COMMENT.

THE SPREAD OF KNOWLEDGE OF MENTAL THERAPEUTICS AND THE GOOD AND EVIL OF EDDYISM.

The dissemination of so-called "Christian Science" or "Eddyism," is having one result which may be regarded with satisfaction in convincing large numbers of people that there is a power in mind capable of helping in the combat with disease. The average individual who has paid no attention to these matters regards the idea that any bodily ailment can be relieved or cured by mental influence as absurd, yet there are constantly presented unmistakable cases in which severe suffering is relieved, and maladies that were real to the apprehension of the sufferer seem to disappear under the influence of mind. Making allowance for all cases of deception—either self-deception or that practiced consciously or unconsciously by the "healer," there still remain unquestionable cures. The study and analysis of these show that many functional nervous disorders depend largely upon the *ideas*

of the patient. If he can be made to think that he has not the disease or that it is under the control of thought he can and does "think it away." This is all due to the power of mind over body which has always been known and recognized by well informed medical men. "Hypnotism," "Eddyism," "Dowieism," "Braidism," "Faith healing" or Magnetic "Menti-culture," "Suggestive therapeutics," cures at shrines like Lourdes, St. Anne or Beaupré, et id genus omne, are illustrations of different forms of power of mind over matter through all of which the same principle runs.

Some of these systems claim exclusive and universal dominion. Eddyism arrogates to itself power over all diseases and insists it is the "own and only greatest" healing institution on earth. Its extravagant and absurd claims destroy its power over those of judicious mind, but what it really has to show establishes indisputable proof that there is a field in which it is efficient, and the common intelligence is being convinced that states of mind can and do influence and determine bodily condition, and especially is it made plain that there is a large class of ailments which can be caused by morbid and cured by healthy mental states. This fact is receiving more and more universal recognition, and it is well that it is so—for there is an agency of vast usefulness to humanity in the power man can exert over himself or which one of more commanding force can exert over another through various forms of influence or "suggestion": First, in removing complaints which are imaginary; second, in ameliorating those which are real.—And an important question here is the *diagnosis.*

Diseases are often thought to exist, especially by the laity, which are not present. An extreme illustration is given by persons who often get the idea they have cancer, heart disease, consumption, and the like. Sometimes there is a mistake in the diagnosis even of a good physician, but more often the patient makes his or her own diagnosis and proceeds with some sort of treatment, going perhaps to the drug store, perhaps to some specialist—regular or otherwise—perhaps to one of the numerous sorts of "healers" that abound. Now what happens is no miracle. The patient undergoes a "wonderful" cure—because he never had the disease!! but—whatever the method of treatment—that gets the credit! But aside from these unreal cases there are vast numbers of persons with nervous ailments which have in them an important *mental* element: such are functional disorders of the circulation, digestive disorders, globus hystericus and the allied sensations, disorders of sensation, anesthesias, paresthesias, hysterical paralyses of either motion or sensation, functional eye troubles, spasmodic disorders, like muscular tics, sphincter irritability, asthma, etc. The

nervous weakness or disorder remains the same, but the extent to which the patient suffers, depends very greatly upon the *state of mind.*

If the patient can be made to live hygienically and the mind and attention be engaged in a healthful manner, they are in many cases at an end. Especially is healthful and interested occupation of mind capable in many cases of being a sovereign remedy, excluding morbid ideas and replacing them by healthy ones. This is the secret of thousands of so-called cures, and it seems probable we are to see a very great extension of what may be called "mind-cure" in the field of these maladies. It will be sufficient to quote from current literature two or three "straws" which show the direction of the wind.

We adduce from the *Journal of the American Medical Association* of December 8, 1906, the following: "Psycho-Therapeutics.—As suggested in a Journal editorial recently, Emmanuel Church, Boston, has organized a class to study mental cures. This church also maintains a tuberculosis class. The new class will meet once a week to study, confer and consult. Dr. Richard C. Cabot spoke at the first meeting, held November 17, and affirmed that many of the ailments which afflict mankind may be benefited by psycho-therapeutics." This movement for utilizing whatever there is of value in the influence of mind over body is a step in the right direction, and when men like Dr. Cabot engage in it, the charlatans and quacks will be eventually driven from the field.

Another "straw" showing the tendencies of the time, we extract from the daily press in the form of a "special telegram" from Milwaukee, dated October 18, 1906. This dispatch states that the "Living Church," the official organ of the Episcopal Church of America, publishes an editorial by Rev. L. H. Grant, inspired by Bishops Nicholson and Grafton, advocating "the sacrament of holy unction" as a counter movement to Eddyism. The quotation given states that "Technically and potentially the Anglican Churches have never abandoned the healing office," and discusses the best method of recommitting the church to this "apostolic practice."

There is scarcely a limit to the citations that might be made showing the increasing recognition of mental and spiritual agencies over physical conditions. But with one more citation we will close. This quotation is intended to show that even organic nervous affections are induced by *mental* emotions—a fact which will not be disputed by the best informed medical men. An illustration of this view is given by the following paragraph—an abstract in the *Journal of the A. M. A.*, September 9, 1905, of a learned article by Cheinisse in the Paris *Semaine Medicale* (No. 29, 1905). "Are Moral Emotions Able

to Induce Organic Nervous Affections? Cheinisse answers his question in the affirmative, and cites a number of instances to sustain his assertion that a psychic shock under certain circumstances may induce an anatomic lesion of the nerve centers, just as it may favor the development of epilepsy, hysteria or a neurosis of any kind. He insists also on the fact that a certain interval may and usually does elapse between the emotion and the first manifestations of the consecutive nervous affection. Paralysis from fright and similar affections may be readily cured by appropriate measures, but, on the other hand, they may persist, and the prognosis should always be more or less guarded." Here we have still more pronounced evidence of the power of mental states to produce disease—the converse of the proposition that they can cure them; and both theses are capable of being successfully maintained. A familiar illustration of the former to the lay mind are the undoubted cases in which "hair has been turned white in a single night" by some disastrous shock or fright.

We have but little space in which to offer our conclusion that "mental therapeutics," "psycho-therapeutics," "suggestive therapeutics," or healing of bodily pains and disorders by utilizing mental influence of the patient over himself or others over him, forms an increasingly important factor in the combat with disease at the present day, especially in diseases of brain and nervous system. The extreme form of this power is "hypnotism" in which, however, there is so much uncertainty and so many capabilities for evil as well as good, that it has fallen more and more into disuse, except in its mildest degrees of what has been aptly termed "waking suggestion," in which the patient largely or wholly retains conscience. But aside from any hypnotic power, the simple guidance and instruction of the patient in recognition and encouragement of the power he has *within himself* for keeping in a sane and healthful attitude of mind, repressing morbid and disorderly impulses and ideas—*within certain limits,* accomplishes the same result as Mrs. Eddy's formula, without the mischief inherent in her doctrine that *all* diseases and *all* ills of every kind can be removed by an exercise of mind or will, or calling to aid the divine mind or will. The writer has had occasion in unnumbered instances to see how fatal to mental integrity is the teaching that all diseases—locomotor ataxia for instance, or cancer, can be cured by Eddyism. Many patients have been under his care every year since the cult became widely known, whose nervous and mental breakdown was due to wildest exercise of mind and will in an attempt of the impossible. The attempted "willing away" for instance of a "claim" of cancer or consumption, the chagrin and mortification at failure, the self abase-

ment at supposed lack of the true "Eddylike" power supposed to be only a fault of the healer—these efforts and exercises of a wholly irrational character are responsible for many cases of nervo-prostration and insanity. Let us then recognize the legitimate field where mental influences may benefit and heal, and employ them wherever applicable. Let every logical and legitimate suggestion be employed. Let us acknowledge the element of good that Eddyism contains.

There was something to be learned from homeopathy in spite of its inconsistencies. The same is true of Mrs. Eddy's cult. Let all that it contains of truth be recognized. Let the study of suggestive power and of the working of subconscious mind be encouraged in every reasonable way. There may be gold in the low grade ore, there is a residuum of truth in most of these theories; it is for the medical profession to make the fullest use of these for the good of humanity.

—Richard Dewey.

THE STATE BOARD'S CRUSADE.

The renewed activity of the Wisconsin State Board of Medical Examiners in enforcing the medical laws of this state, is encouraging and commendatory. On complaint of the Milwaukee Health Department and the Board, warrants have been issued for the arrest of a number of illegal practitioners in Milwaukee, nearly all of whom are of the "fake diploma" variety, and some of whom are charged with violation of the statute against indecent quack advertising; this is said to be but the beginning of a state-wide crusade by the State Board of Medical Examiners to rule out of practice all practitioners who have not fully complied with the law in every particular. This movement is deserving of the support and encouragement of every reputable citizen of this state.

Success and more power to the Board as long as that power is exercised justly, wisely and honestly. No reputable, honest and capable physician need be outside the pale of the law regulating medical practice in this state, and no well founded complaint of hardship can be made against our medical laws. They are in the highest sense calculated for the public good.

The dishonest rascals, who through indecent and false advertising play upon the ignorance, credulity and fear of their victims, surely have no great cause to complain of the moderate restraint placed upon them by the law, and the impostors and frauds who are holding themselves out as practitioners of medicine on the strength of purchased fake diplomas, forged certificates or such as were obtained by perjury

and fraud, are surely displaying the depths of impudence when they question the state's right to put them out of business.

Our medical laws should and must be enforced! They must be modified to meet changing conditions, and strengthened where they are weak, until there shall be upon the state books an enactment relating to medical practice which shall—so far as possible—guarantee to the sick that when they call for the services of a man who holds himself out as a physician, they shall at least have the services of an educated man and one who conducts his practice along the lines of ordinary decency and common honesty. This is all the profession asks and the least that the public should expect.

A WORTHY INSTITUTION.

The Milwaukee Maternity Hospital and Free Dispensary was opened on December first under very auspicious circumstances.

The Board of Managers have rented a small house at 424 Vliet street for a hospital which will be used as headquarters for extramural work. The hospital has been furnished completely with a reception room, operating room, one private room and two ward rooms, each with two beds. There is in addition a room for the resident nurse and a very complete kitchen.

Dr. Hipke, through whose untiring efforts the Maternity Hospital was successfully started, is the obstetrician-in-chief. There are four associate obstetricians and six assistant obstetricians besides a medical and surgical staff, two ophthalmologists, and two pediatrists. The plan, which is modeled after Dr. DeLee's hospital in Chicago, is to have the prospective mother register at the hospital and report for any necessary examination. At the time of her confinement an obstetrician and a trained nurse are sent to her and each day thereafter she is visited by the physician for ten days or longer if necessary, a full report of the case being made daily to the hospital.

The hospital will do a great deal of good, not only as a worthy charity, but in elevating the general tone of obstetrical work among the poor, and taking many cases away from ignorant midwives.

RECENT ADVANCES IN THE STUDY OF SYPHILIS.

Since Schaudinn's discovery of the specific germ of syphilis, much notable work has been accomplished in animal experimentation among the anthropoid apes and higher monkeys. The *British Medical Journal* mentions the most recent work of Metschnikoff and Roux who have succeeded in producing an attenuated form of virus which they will unquestionably succeed in proving to be protective in man against

the infection of syphilis. They commenced by inoculating a chimpanzee from two rhesus monkeys, one having an eighth and the other a ninth passage of the virus. The chimpanzee was severely affected but inoculation of a rhesus monkey from the chimpanzee was at first a failure. A second monkey took the infection when inoculated after two months, and thence it has been passed from rhesus to rhesus without interruption, the average inoculation period being from 19 to 7 days. The virus, though virulent for the rhesus monkey, was only slightly so for closely related monkeys such as macacus cynomolgus, and, curiously, though virulent for chimpanzees after the eighth attenuation, was lost at the eleventh. That all these animals were genuinely syphilitic is shown by the fact of the demonstration of the spirochaete pallida from each of them.

An accidental infection of one of the laboratory workers from one of the animals may show what to expect of protective inoculation against the disease. This man who had a small round ulceration of the lip without glandular enlargement and no other complication, was pronounced free from syphilis by Fournier, the eminent syphilographer. He had never previously had syphilis, and in order to relieve the man's uneasiness a macacus cynomolgus was inoculated from scrapings from the ulceration. Much to the surprise of everyone, after 35 days the animal developed typical lesions containing spirochaetes. Now, the question naturally arises as to whether a patient so inoculated would remain resistant to an original infection of spirochaete. We may, reasoning from analogy, infer that he would be so protected. This line of investigation is difficult, but volunteers may be found as they were in Cuba during the solution of the yellow fever problem.

The next line of investigation, preventive vaccination being a *fait accompli*, will probably be an attempt to produce curative sera to be used in cases fairly launched in the secondary stage of the disease.

MEMBERSHIP IN THE A. M. A.

We have been requested by Dr. W. T. Sarles, Wisconsin member of House of Delegates, American Medical Association, to call attention to the fact that only a little over one-half the physicians in this state who are subscribers to the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, are also members of the A. M. A.

Inasmuch as every subscriber to the JOURNAL is by virtue of this also entitled to membership in the A. M. A. without additional cost, it is hoped that, when renewing their subscriptions, the physicians will also join the Association.

THE INDEX MEDICUS.

The most exhaustive and complete medical index published in any language, may, if proper support be withheld, soon cease publication. During the years 1899 to 1903 this publication was, for lack of funds, discontinued entirely, and the hiatus in the indexing of medical publications during those years has never been filled. The Carnegie Institution of Washington came to its relief in 1903, and since then the Index has been financed by this Institution. While formerly the price, 25 dollars, may have been prohibitive, such a material reduction has been made that its present cost can no longer be considered a reason for its nonsupport. Although individual physicians may not, unless they have a large library, care to subscribe to the Index, its support ought to come from every medical library in the country—whatever its size—and from every health officer, librarian or statistician. Not only are there published the titles in full of the books, pamphlets, theses, contributions to co-operative works and original articles in journals, transactions of medical and scientific societies, and the like, arranged under subject-headings, in various languages, but the Index offers a monthly bibliography of interest to sanitarians, among the subdivisions under the class of Public Hygiene appearing articles on "Sewerage, Drainage, Water Supply, Inspection of Food and Drugs, Disposal of Dead, and Hygiene of Habitations, Occupations, Persons, Schools. The Subject of Medical Charities, Medical Education and Schools, and Medical Jurisprudence are also included."

The nominal price of $5.00 per year, bears no proportion to the cost of production, and ought to make it possible for so invaluable a publication to continue its existence.

NEWS ITEMS AND PERSONALS.

Dr. C. D. Boyd of Kaukauna is in New York doing post-graduate work.

Dr. N. P. Mills of Appleton announces that after Jan. 1st, 1907, he will restrict his practice to office, hospital and consultation work.

Dr. E. H. Krentzman of LaValle, was accidentally shot while hunting rabbits, Dec. 2nd. The charge tore his hand badly and one shot penetrated his brain. His wounds are considered very dangerous.

Dr. Fernand Henrotin, of Chicago, one of the country's best known physicians and surgeons, died of heart trouble and general breakdown at the Chicago Polyclinic Hospital, December 9th, aged 59.

Erratum. Dr. F. Shimonek of Milwaukee requests us to make the following correction: In his discussion of the paper on "Surgical Shock" (published in Oct. Journal) he is made to say that "the tendency of normal salt

solution is to *dry up* the splanchnic area," etc., whereas it should have read—"*drown* the splanchnic area."

Department of Public Health. The establishment of a Department of Public Health with representation in the cabinet, was advocated at a conference of the American Medical Association. The initial meeting was devoted to a discussion of the subject, "A Department of Public Health", by Senator Spooner of Wisconsin and others.

Dr. Armin Mueller, of Milwaukee, was exonerated of a charge of malpractice in a suit recently brought against him. Dr. Mueller was called to attend a child that had swallowed a button which lodged in the larynx. It was found necessary to perform tracheotomy. The child died despite the treatment employed. Evidence showed conclusively that operative interference was not only justified, but imperative.

Resthaven Sanitarium Sold. "Resthaven" at Waukesha, the sanitarium begun nearly two years ago, the main building of which is finished except for the interior, has been sold under foreclosure proceedings to John J. Williams of Milwaukee, representing some of the largest bondholders, for $25,000. The plant complete was to have cost about $300,000, and something like $150,000 had been subscribed for the purpose. A new corporation, to be known as the Resthaven Company, will be organized which will complete the building.

Dr. Melancthon H. Fisk, one of the widest known physicians of the state, died on December 2d, at his home in Wauwatosa, after having been ill for several months with cancer of the throat. He was 62 years of age.

Dr. Fisk was born at Depere, Wisconsin, in 1843. After completing his early education at Green Bay schools and in Hopkin's University at Hadley, Mass., Dr. Fisk entered Lawrence University at Appleton. When the civil war broke out he enlisted in one of the Wisconsin regiments and was wounded in battle, but not seriously. After returning home he entered the medical department of the University of Michigan. He was graduated from that institution and went back to his home town as a practicing physician. In 1883 he was elected the first mayor of Depere under the charter. In 1886 he removed to Wauwatosa and became a member of the medical staff of the Milwaukee County Hospital. He had lived in Wauwatosa ever since.

AN APPEAL.

To the Medical Profession of Wisconsin and Michigan.

The medical profession of San Francisco lost its medical library, the San Francisco County Medical Society Library, in the fire last spring. Most of the physicians lost whatever private libraries they had succeeded in collecting. A committee (named below) has been appointed by the American Medical Association and by the Association of American Physicians to collect and send books to San Francisco, both for the library and for private individuals when duplicate copies are sent on.

Will you send to Dr. Arthur T. Holbrook, Goldsmith Bldg., Milwaukee, any medical books of value or bound volumes of Journals which you can spare? Fairly recent editions of standard text-books, foreign text-books or bound Journals (French, German and Italian), hospital reports, monographs of all sorts, books on special subjects, old classics (*e. g.* Trousseau, Charcot), and the Sydenham Society publications are especially desired.

Acknowledgment of all that is received will be made through the medical Journals, and the books will be packed and shipped as promptly as possible.

(Signed)

CHAS. L. DANA, Chairman, New York City.

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GEO. M. KOBER, Washington.	

CORRESPONDENCE.

THE STATUS OF THE DETENTION HOSPITAL.

Editor WISCONSIN MEDICAL JOURNAL:—

The present situation with regard to the detention or reception hospital for the alleged insane in connection with the Milwaukee Emergency Hospital, is as follows:

Prolonged agitation has been followed by considerable achievement. The physicians are heartily in accord with the movement, and it is to the laymen now before whom we must set forth our propaganda, and chiefly to that portion of them constituting the county and city authorities, to whom we must look for practical achievement.

SCOPE.—About one-third of the persons who exhibit mental symptoms suggestive of insanity will "clear up" if they have suitable care for a short period and will not require commitment to the insane hospital. For their care, however, there is no provision except in the insane hospital itself, which is wrong if they are not insane; or too often they are found in the lock-up, which is cruel as they are not criminal.

General hospitals will not take them, nor rightly enough, can they. They require special quarters.

TYPES OF CASES.—The cases to be provided for as we see them in this city are:

Those who are delirious from other diseases or injuries and come under suspicion of insanity.

Alcohol, morphine and cocaine cases with symptoms resembling insanity.

Wandering cases, sometimes belonging at a distance, falling into mental confusion, suicidal, or unable to give an account of themselves, needing a place for care or treatment until friends are found or mental condition determined. A case in point is that of a lady from another state in attendance here upon a convention, who became confused suddenly, unable to give an account of herself and was obliged to spend a day or two at the police station to her great humiliation when she finally came to herself.

Epileptic or hysterical or even cases of nervous prostration resembling insane states and requiring some observation before question of insanity or commitment can be determined.

Some charged with crime who are presumably or obviously insane at the time or show symptoms afterward.

Patients whose friends know no other avenue for protection from them or for their commitment, than to call in the police. I found three of these in jail on one day recently.

Cases sent by the court under temporary detention (ten days) to avoid undue haste in commitment, to give time to determine the existence of insanity or necessity of commitment.

Lastly, cases which are already beginning to turn up more and more at the Emergency Hospital and for whom a separate department is becoming very urgent.

PROGRESS.—In the face of these needs we are fortunate in having the upper floor of the Emergency Hospital vacant and an ideal place for our quarters. Many of these cases are as much of an emergency character as those treated on a lower floor. The trustees of the hospital have voted unanimously in favor of the equipment of this upper floor for our purpose. Tentative plans have been drawn. Three thousand dollars has been estimated by the Board of Public Works as the amount necessary to properly do so. The Health Committee of the Common Council approved this report and will recommend this expenditure.

WAYS AND MEANS.—As the Emergency Hospital is a city institution and the care of the insane a matter of county control, it was necessary that the city and county co-operate. An opinion of the

district attorney showed such co-operation within the law. A joint committee of the city council and the county board of supervisors was appointed for determining ways and means and is at present engaged therein.

MAINTENANCE.—It seems clear that the charge for the support of these patients should not fall upon the city. Although in so far as many are emergency cases and as some of them now turn up at the police station, the city may not be entirely without responsibility.

On the other hand, by reason of the law of 1897, which anticipated the provision of detention hospitals in counties, the county is made liable apparently. That at least was the intent. Chap. 32, Sec. 586, says: "The Board of Supervisors of such county is hereby authorized to erect, purchase, or in some other manner provide and maintain suitable buildings for the purpose of such temporary detention of the alleged insane." If there is any ambiguity about maintenance of patients here, there is another statute (Chap. 32, Sec. 604e) which provides that no county shall be entitled to any compensation from the state for any person who has not been duly adjudged insane and properly committed. A writ of temporary detention is not an adjudication of insanity.

Thus the county is at the present time paying for the maintenance of this class under temporary detention at the Milwaukee Hospital for Insane. Under the law the state pays back to the county $3.50 a week for two-fifths and $1.50 a week for three-fifths of the patients in the Milwaukee Hospital for Insane, the county making up the balance of the per capita cost. But the state does not pay for the patients under temporary detention. The county is doing that. It is only proposed now that this temporary detention be in another place.

ECONOMY.—There is a matter of saving directly to the county in this, by reason of the fact that temporary detention saves a large number of commitments, patients recovering after a short care who would, if once sent to the hospital, remain a much longer period (sometimes months), the county paying for its quota of their maintenance for this longer period.

PER CAPITA COST.—It seems to me that the county cannot but feel its obligation, and that the matter to be determined by the joint committee is as to what shall be the cost per capita. What shall the city charge the county for board of these patients per capita per week? We cannot yet determine what the average number of patients under care and treatment will be. Thus no round sum for maintenance can be arrived at. An arrangement might be made to cover an

experimental period in the matter of cost. The cost per capita for maintenance at the Milwaukee Hospital for Insane is about $3.50 per week. At the County Asylum for Insane the cost is about $2.45. At the Milwaukee County Hospital the cost is approximately $5.65 per week. These are not fair comparisons in estimating what the cost should be, as in all of these the population of the institution is large and that of the Emergency Hospital at present has only an average of about four patients a day. The cost at the Emergency would therefore be considerably higher.

The city, on the other hand, in fixing the per capita, should remember that a certain number of this class would come to the Emergency Hospital in any case and are coming there under city cost, though most of them remain but a short time as is the rule with all emergency cases.

Lastly, it might be said that a certain number of these patients can pay their own board as they do now at the Milwaukee Hospital for Insane while under temporary detention.

Under these circumstances it would seem that satisfactory negotiations could conclude between the city and the county, each willing to do what is just in the matter to the end of a very worthy and long suffering cause.

Milwaukee. W. F. BECKER.

IN MEMORIAM.

JAMES THEODORE REEVE, M. D.

The JOURNAL of the State Medical Society of Wisconsin in its last issue announced the death at his home, Appleton, Wis., Nov. 4, 1906, of Dr. James Theodore Reeve, late member of this Society. It also published a short biographical sketch of our lamented associate.

This is all too brief a final record of one whom the Society had for many years held in the highest honor and esteem; and yet it is a simple witness to the worth which all recognized, and which was so long called upon in official support of the Society's interests.

Honor and esteem seem a sufficient tribute even to exalted worth, and yet these are not the words which come first to mind, as the personality of Dr. Reeve is recalled. Affection is the fitting and dominant word to describe the personal regard of all who knew him well. Nor does this only mean the older members of this Society. The younger generation of physicians thrown within the sphere of his genial influence, profiting by his wise but always modest counsel in the sick-room, and by his delicate consideration for the rights and honor of all his brethren, think of him with almost filial affection.

His long professional career in Appleton, and his widely recognized abilities, brought him into close relations with many of his brethren; and the qualities of mind and heart exhibited to each and all established a confidence which never failed. His uniform courtesy, his cordial recognition of the abilities of younger and less experienced men, his kind and self-effacing approval, when it was deserved, gave courage to many an anxious and doubting spirit. Even when a differing advice was given it was in such kindly spirit as to take the sting from criticism, and make the recipient feel that he was supported and strengthened, rather than weakened, in the confidence of his patient.

There will be many of his old associates who will lament that the old ethics of the immemorial past has lost one more of its finest exemplars, and see in their narrowing horizon the near extinction of that spirit which they hold so sacred. But Dr. Reeve was not one who despaired of the ancient order of things, or feared the iconoclasm of the new regime. He realized without misgivings that progress in medicine meant change in temperament and method, but did not believe that the growing materialism in harmony with the business methods of the age meant moral impairment, or any less of that altruism which in all ages has been the glory of our art. So it was his happy lot to display all the virtues of the old-time physician, and to see and welcome all the added qualities of the new.

We shall long remember this lovable guide, philosopher and friend, revering those qualities dear to the heart of every true physician, but cherishing most those qualities which made him brother to all mankind.

J. R. BARNETT, M. D.,
H. W. ABRAHAM, M. D.,
G. M. STEELE, M. D.

(Resolutions presented by a committee appointed by Dr. L. H. Pelton, President of the State Medical Society, to be spread upon the Society's record.)

Dr. James T. Reeve, one of the oldest and best known physicians in Wisconsin, died on November 4th at his home at the age of 74 years. Dr. Reeve was born at Goshen, N. Y., April 26, 1832. He was a graduate of the Jefferson Medical College, Philadelphia, of Ann Arbor and of Castleton Medical College, and has practiced medicine in Wisconsin since 1855. He first located at Depere, later going to Green Bay, and then enlisted in the medical corps during the civil war. He was promoted to major surgeon in the Twenty-first Wisconsin regiment. He was captured in battle at Chickamauga and was a prisoner at Libby prison. For nineteen years he was secretary of the Wisconsin State Board of Health and for several years was president of the State Medical Society of Wisconsin. At the time of his death Dr. Reeve was vice-president of the First National Bank of Waupaca, member of the library board and the oldest Northwestern railway physician in Wisconsin.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

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A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

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NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

THE WINTER CAMPAIGN.

The farther we get along the more we appreciate the far-seeing wisdom of the men who persuaded us to adopt the present plan of medical organization. That the conditions in the profession were most unsatisfactory, and that remedies were sorely needed, was very evident. Up to that time the medical profession was not only unorganized, but it is no exaggeration to say that it was disorganized. In most of the states there were but few county or local societies, and those which did exist led a most fluctuating and precarious existence. Their organization was loose and ineffective, with no active co-operation with each other or with the State Society. The individual physician especially in the country districts—worked largely alone, not only without the aid and sympathy of his fellow practitioner, but too often he had to meet his open or concealed hostility. Professional jealousies and bickerings had made the "odium medicum" even more marked than the "odium theologicum," and the result could not be otherwise

than destructive to that public confidence and respect which the medical profession should naturally command. The principle of action seemed to be "every man for himself and the devil take the hindmost," with the inevitable result that his Satanic Majesty too often secured his prey. It naturally followed that so-called "medical ethics"—which should mean simply the courteous and considerate treatment which one gentleman is glad to give to another—was a term of opprobrium in the minds of a large part of the profession—the newcomers especially. Without the corrective influence of association and comparison, the individual worker became narrow and prejudiced in his vision and unjust in his judgments. This, in spite of the obvious fact that in no profession is there more need of harmony and co-operation and that no one can begin to give us the help that we are able to give to each other, if we will. In the past, our treatment of this whole "sectarian" question has been about as bad as it could well be, and affords a fine illustration of how a thing should *not* be done.

The difficulties we have met in securing needed medical and health legislation have been the result—almost wholly—of dissension in our own ranks, and of the hostility of the other schools of medicine. So go no farther. This catalogue of misdirected effort and wasted opportunity might be indefinitely extended, all clearly because of the lack of a united and effective sentiment in the profession itself making for better things—because there was wanting in so many that "esprit du corps"—that loyalty which should lead the physician to place his profession next to his family, in his esteem and affection, and be ready to make any sacrifice in promoting its interests.

These, then, were some of the evils to be corrected—the wants to be met, and it was the duty of the committee appointed by the American Medical Association to devise some scheme, sufficiently practical and far-reaching, to secure the desired results. The plan which was submitted to the state societies, accepted at first with misgivings and hesitation, has now been on trial sufficiently long to be judged on its merits. It is not too much to say that, among the best men in the profession, the verdict in its favor is well nigh unanimous. While some minor changes may be made, the general plan is accepted as sound and practical. Harsh criticism or condemnation is only heard where, in some way, it appears to conflict with the private interests of the individual.

The central idea is *organization,* not in *spots,* but *everywhere* and *complete.* The shibboleth: "get together and stick together. Fight the enemy—of all kinds and conditions—instead of fighting one another. Speak the good word, and give the glad hand to the brother

worker, wherever it is possible, and always be considerate and charitable."

The most important agency which was chosen for the solution of these problems was the County Medical Society. Here was laid the foundation, built upon which, the whole structure—culminating in the A. M. A.—must stand or fall. In form and purpose thoroughly democratic and representative, it is an appeal to the rank and file of the profession, in every county in the Union, for each and all to do their part in lifting high the standard of professional character and service. The underlying motive is not selfish, nor sordid, nor commercial, but altruistic and beneficent in their widest sense. We wish a better and stronger profession that we may render better service to the community and to the State. These things have been said many times before, but there are a few men in the profession who seem utterly unable to appreciate the true nature of the movement and profess to think that it is a step down instead of upward. The fact that they are almost alone in their opinion should lead them to a more careful consideration of the whole matter. To be sure, the result will be a better paid, and a better appreciated profession, but that is only incidental.

From what has been said it must not be inferred that the millennium has already dawned upon the medical profession. Alas, far from it! We've only taken the first step; but the improvement which is already apparent shows clearly that we are on the right track, and we need only to keep right on with our present methods. And this brings us to what we started to speak about—The Winter Campaign.

As before said our most important asset in this whole business are the County Societies. Through their delegates and membership they control and *are* the State Society. The spirit, the ideals, the activities which we find in them are a trustworthy index of what we shall find in other societies, and in the profession at large. Like any other machine, it will do good work if it is run as it should be, and is kept in good running order. To secure results it is not enough to rely upon the Annual Meeting of the State Society, or of the societies in the larger cities. If the leaven is to leaven the whole lump, its influence must be felt throughout the whole body of the profession. The "Medical Society Spirit" must be everywhere and be co-extensive with the boundaries of the state. The societies must be genuine, active and aggressive—not simply "on paper." The meetings must be held regularly and sufficiently often to maintain the interest. Interesting and well digested programs must be prepared, well in advance, and the

meetings well advertised. It has been found that nearly all are much interested in the *business* problems connected with the profession. Arrange for a full and free discussion of such subjects as a fee-table, best methods of collection, "dead-beat" list, surgical commissions, insurance examination fees, contract practice, and the like. There should be a mutual understanding among the physicians of a county or neighborhood on these important subjects, and much good will result from a frank consideration of them. Special meetings may be held for this purpose, or one of these topics may be introduced at each regular meeting.

As to *penalties*. Dr. Simmons, the secretary of the A. M. A., has this to say in his pamphlet on organization. "But then let it be said that there should be no forcing in the matter. If a voluntary mutual agreement cannot be carried out there should be no penalty attached for its infraction. If one man persists in placing a low price on his services, in opposition to the wish and practice of the other physicians in his neighborhood, it will not be best to turn him out of the society or inflict a fine. Such a one will, in time, learn that no man ever made a reputation by placing his services lower than those of his fellows, and that he who places a low estimate on his abilities will find that his patients will generally judge him by his own standard. Moral suasion, backed by an intelligently organized profession, will prove more effective." Then, with all your doings, don't forget to have a good time, and cultivate your social instincts. It is probably true that a medical society is worth all it costs if it is only a social medical club, but sociability will only add to the opportunities for scientific improvement.

According to the Annual Report of our 60 county medical societies, about 40 prefer to hold meetings quarterly, or oftener. It is probable that, of the whole number, not over 30—one half—are doing really satisfactory work along scientific lines. The plain duty before us is to bring the other 30 societies up to the proper standard. This can only be accomplished by a united strenuous effort of all concerned —especially the Councilors and the county secretaries. The councilor should be in close touch with each secretary in his district, and be ready to hold up the weak hands wherever needed. If you have failed in the past year to live up to your high privilege, the Annual Meeting in December will afford an opportunity to plan for better things in the future. If your secretary is lacking in interest or energy, secure a better man, if possible, strengthen the weak places in the organization, round up the stragglers, and so—all working together—may the com-

ing year show a real advance in all things which make for the upbuilding of our beloved profession. (C. S. S.)

BROWN COUNTY MEDICAL SOCIETY.

The November meeting of the Brown County Medical Society was held in Dr. A. W. Slaughter's office at Green Bay, November 11, 1906, with an attendance of thirteen.

The meeting was called to order by the president, Dr. Mailer, and after the usual preliminaries a very interesting paper was read by Dr. P. O. Schallert of Wrightstown, entitled, *Is a Doctor Justified in Doing His Own Dispensing?* The paper maintains that a doctor is not only justified but is in duty bound to do so. It is remarkable for its originality and thorough mastery of the subject.

After adjournment the members repaired to DeLair's dining hall, where a very appetizing lunch was partaken of.

R. H. SWEETMAN, M. D., *Secretary.*

CRAWFORD COUNTY MEDICAL SOCIETY.

A well attended and most enthusiastic meeting of the Crawford County Medical Society was held at the Prairie du Chien Sanitarium on Tuesday evening, Nov. 13, 1906.

To give the members in the Kickapoo Valley an opportunity to attend, the meeting was called to order at 9 P. M., with Dr. A. J. McDowell of Soldiers' Grove in the chair. Sickness in his family made it impossible for Dr. N. A. Peterson of Soldiers' Grove to present his paper.

Dr. F. J. Antoine of Prairie du Chien read a paper on *Membranous Croup with Report of Two Cases.* The use of large doses of antitoxin in all such cases was emphasized in the discussion which followed.

Dr. Edward Evans of La Crosse then read an able and scholarly paper on *Tuberculosis of the Genito-Urinary Organs.* Dr. Evans urged the early and painstaking diagnosis of affections of the genito-urinary organs, and he showed by report of cases that the prognosis is favorable in a definite ratio as early diagnosis is made.

On motion it was decided to forward Dr. Evans' paper to the WISCONSIN MEDICAL JOURNAL for publication.

Election of officers resulted as follows: President, Dr. C. E. Cole; vice-president, Dr. Jas. A. Dinsdale; secretary and treasurer (re-elected), Dr. F. J. Antoine; censor, Dr. A. E. Dillman; delegate, Dr. A. J. McDowell; alternate delegate, Dr. F. J. Antoine.

An invitation was extended to the 3d and 4th District Societies to meet in joint session with the Crawford County Medical Society, in April. 1907. This proposal had the enthusiastic endorsement of every member present and the society will make every effort to make this joint meeting a date to be remembered in Crawford County medical circles.

The Society extended a vote of thanks to Dr. Evans.

It was decided to have the next meeting at Wauzeka in February, 1907.

The Society then adjourned to an oyster supper.

F. J. ANTOINE, M. D., *Secretary.*

DUNN COUNTY MEDICAL SOCIETY.

The December meeting of the Dunn County Medical Society was held at the Hotel Royal, Menomonie, December 11th.

A general discussion on appendicitis and peritonitis caused by injuries to the abdomen followed.

Officers for the ensuing year were elected as follows: president Dr. N. L. Howison; vice-president, Dr. A. F. Heising; secretary and treasurer, Dr. F. E. Butler; delegate Dr. A. F. Heising; alternate, Dr. W. H. Carls; Board of Censors, for three years, Dr. B. J. Steves.

Dr. Howison resigned from the board of censors, Dr. Herriman being elected to fill the unexpired term.

The Committee on forming a Physicians Collection Association, reported in favor of such an association, and organization will be effected immediately.

F. E. BUTLER, M. D., *Secretary.*

FOND DU LAC COUNTY MEDICAL SOCIETY.

The Fourth Annual Meeting of the Fond du Lac County Medical Society was held in the council rooms at Fond du Lac, Nov. 14th.

After the usual order of business, Dr. Frank McCauley of Fond du Lac was unanimously made a member of the Society.

The Society then proceeded to the election of officers with the following results: President, Dr. J. W. Burns, Oakfield; vice-president, Dr. Geo. F. Scheib, Fond du Lac; secretary and treasurer, Dr. F. A. Read, Fond du Lac; censor for three years, Dr. S. E. Gavin, Fond du Lac; delegate, Dr. J. P. Connell, Fond du Lac; alternate delegate, Dr. F. S. Wiley, Fond du Lac.

Dr. Frank S. Wiley, as retiring president, made some forcible remarks in regard to the shortcomings of our Society, what he had hoped to accomplish and felt he had failed, and what he hoped our new president would be able to do. Dr. Wiley then introduced our new president, Dr. J. W. Burns of Oakfield.

Dr. Burns gave his thanks to the Society for the honor shown him in a few well chosen words and then proceeded to the program for the day.

Dr. Henry E. Twohig gave a paper on *Ectopic Gestation*, speaking of the etiology, symptomatology, diagnosis and treatment. Dr. Twohig said he had had but one case which he discovered on operating for appendicitis, so felt he could not speak from much experience, but the only treatment he would advise would be to operate as soon as you make your diagnosis.

Dr. Connell discussed the paper and said that he had had about ten of these cases in his practice, some of which he did not diagnose till several years after death of patient. Last year he operated on two with recovery, this year he operated on four with one death, patient being in collapse when operated upon. He thought if hemorrhage was from under surface of tube into folds of broad ligament and we could be reasonably sure of it we would better not operate, but if from upper surface of tube it would be better to operate at once.

Dr. C. W. Leonard read an excellent paper on *Gastro-Enteritis in Children*, giving etiology, symptomatology, pathology, diagnosis and treatment of acute and subacute forms.

The paper was discussed by Drs. Mears, Gavin and Connell.

After some discussion as to best time of day to have meetings held, it was voted to hold the January meeting in the evening at some hotel. The meeting then adjourned. F. A. READ, M. D., *Secretary.*

GRANT COUNTY MEDICAL SOCIETY.

The regular December meeting of the Grant County Medical Society was held at Platteville, December 13th, with Dr. W. Cunningham, ex-president of the Society, in the chair. Ten members and visitors were present.

The usual order of program was varied by a very interesting surgical clinic, conducted by Drs. W. Cunningham and G. C. Buck, at their hospital. A case of Appendicitis, and one of Laceration of Cervix and Perineum were presented, and successfully operated on.

An excellent paper by Dr. C A. Armstrong on *What Can the County Society Do* was read.

Cases of unusual interest were reported by all present, and elicited general discussion.

The following were elected to membership in the Society: Dr. H. A. Jefferson, Patch Grove; Dr. G. G. Gobar, Muscoda; Dr. J. McGovern, Potosi; and Dr. C. N. Stuesser, Hazel Green.

The next meeting will be held at Montfort, the second Thursday in May.

M. B. GLASIER, M. D., *Secretary.*

GREEN AND LAFAYETTE COUNTY MEDICAL SOCIETIES.

The Green County Medical Society and the Lafayette County Medical Society held a well-attended joint meeting at Monroe, Dec. 11, 1906.

Out of 48 members enrolled in both counties 38 were present—surely a very creditable showing when five-sixths of the doctors of two counties can get together for a meeting, and it speaks well for the medical society spirit in this part of the state. The papers without exception were well prepared and thoroughly discussed. A banquet was held, which as a social feature was of more than usual interest. There was a forenoon session and an afternoon session.

The forenoon program consisted of the following papers:

(1) Report of a Case of Measles complicated with membranous Croup and Nephritis. By Dr. Roberts of Albany.

(2) Rectal Ulcers, by Dr. C. F. Lehnkering, Darlington.

(3) Diseases of the Stomach commonly met with in general practice. By Dr. Minnetta C. Flynn, Monroe.

(4) Nasal Surgery by the General Practitioner. By Dr. D. W. Hogue, Darlington.

(5) The X-ray as a Therapeutic Agent in Malignant Diseases. By Dr. N. A. Loofbourow, Monroe.

At the close of the forenoon program adjournment was taken for the banquet, which was held at the Loofbourow Hospital, by invitation of the proprietor, Dr. N. A. Loofbourow, where we were served with a sumptuous repast. Dr. F. W. Byers in his usual humorous vein acted as toast-master and the following toasts were responded to: Medical Advertising as viewed by the Profession and Laity, by Dr. W. W. Peck, Darlington; The Professional

Ladies and the Medical Profession, by Dr. J. F. Pember, Janesville; The Practice of Medicine as a Profession as compared with the other Professions, by Dr. D. W. Hogue, Darlington; The Crime of the Newspapers—Advertising Medical Fraunds, by Dr. J. F. Fleek, Brodhead.

At the afternoon session the following papers were read and discussed: A Plea for Professional Honesty, by Dr. E. W. Fairman, Brodhead; Clinical Observations on the Use of Anti-Streptococcic Serum, by Dr. C. C. Gratiot, Shullsburg; Treatment of Osteomyelitis Prior to the Discovery of Antiseptics, by Dr. Geo. Seiler, Monroe.

The election of officers for Green County resulted as follows: president, Dr. E. J. Helgeson, New Glarus; secretary, Dr. E. J. Mitchell, Brodhead; treasurer, Dr. H. D. Murdock, Brodhead; censor, Dr. Minnetta C. Flinn, Monroe; delegate, Dr. W. B. Monroe, Monroe; alternate Dr. J. F. Mauermann, Monroe. Dr. C. E. Secor, of Monroe, graduate of Wisconsin College of Physicians and Surgeons, 1904, was elected to membership.

The joint meeting was a success. New acquaintances were formed and old ones renewed. It was the expressed opinion of everyone present that the day was well and profitably spent, which goes to prove that more practical benefit can be derived in proportion to the time spent, at our local societies if the proper interest is taken than from our larger bodies like the state or national.

S. R. MOYER, M. D., *Secretary.*

KENOSHA COUNTY MEDICAL SOCIETY.

At the regular meeting of the Kenosha County Medical Society the following officers were elected for the coming year; president, Dr. Wm. H. Saunders, Kenosha; vice-president, Dr. Henry J. Stalker, Kenosha; secretary and treasurer, Dr. J. Russell Eastman, Kenosha; censor for three years, Dr. Frank E. Stevens of Bristol.

The number of members is 20, the number of non-members who are eligible is 11.

J. RUSSELL EASTMAN, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

At the regular meeting of the La Crosse County Medical Society held on December 6th, the following officers were elected: President, Dr. A. Gundersen; vice-president, Dr. D. S. McArthur; secretary and treasurer, Dr. Charles H. Marquardt; censor, Dr. Thos. Miller.

The subject of Insurance fees was discussed at length and while nearly all present felt that a $5.00 fee was not too much for the services rendered, there was considerable doubt among many of the members as to whether the old line companies could be made to change their scale of prices recently sent out to their examiners. A resolution was adopted that the La Crosse County Medical Society favor a $5.00 fee for all examinations made for the old line companies.

C. H. MARQUARDT, M. D., *Secretary.*

LANGLADE COUNTY MEDICAL SOCIETY.

The annual meeting of the Langlade County Medical Society was held at Antigo, December 7, 1906.

Officers were elected as follows: president Dr. G. H. Williamson; vice-president, Dr. H. P. Beattie; secretary and treasurer, Dr. Geo. W. Moore; member of board of censors, Dr. G. S. Bellis.

It was moved and carried that the secretary look up all doctors practicing in Langlade County who have not registered in said county, file a complaint and present to District Attorney.

It was also moved and carried that we amend the by-laws so as to allow the Society to meet every two months instead of every three months. It was also decided that the president appoint two members at the time of each meeting to read papers at the following meeting.

G. W. Moore, M. D., *Secretary.*

MARATHON COUNTY MEDICAL SOCIETY.

The fourth annual meeting of the Marathon County Medical Society was held at Wausau, Dec. 7, 1906, with 14 physicians present.

A clinical case was sent us by Dr. E. M. McCauley of Hatley, which promoted a great deal of discussion. Case: male, Polish, 42 years of age, suffering from continuous lameness of ankle joints due to injuries received, and indirectly due to rachitis of infancy and injuries received at that time.

The following officers were elected to serve for the following year: president, Dr. D. T. Jones, Wausau; vice-president, Dr. H. S. Wahl, Stratford; 2nd vice-president, Dr. G. W. McCauley, Athens; secretary and treasurer, Dr. S. M. B. Smith, Wausau.

The retiring president, Dr. D. Sauerhering, gave his address in which he commented on our past year's work, and made many good suggestions as to how to improve our future meetings.

It was decided to hold monthly meetings hereafter instead of quarterly as heretofore.

Our Society starts out the New Year with prospects of doing more and better work than ever before.

S. M. B. Smith, M. D., *Secretary.*

MEDICAL SOCIETY OF MILWAUKEE COUNTY.

Forty-two members were present at the regular meeting held in the Public Museum Building, October 12, 1906. A resolution endorsing the position of the Health Commissioner, Dr. G. A. Bading, in his opposition to the removal of the Isolation Hospital to a site outside of the city was unanimously adopted. Dr. R. G. Sayle was elected censor in place of Dr. A. B. Farnham, who resigned on removal from the city.

Dr. Wilhelm Becker read a paper on *Gas Organisms.* He stated that two opinions prevailed as to the etiology of the almost invariable fatal condition of gas gangrene of the internal organs; either that it was produced intra vita by specific gas forming organisms, or that it was secondary to necrosis, and caused, in the necrotic areas, by gas-forming saprophytes either just before

or just after death. In studying cases at autopsy he had determined to his own satisfaction that both theories were tenable. In one case, which had simulated appendicitis, he found areas of necrosis in the liver from which streptococci were obtained by culture, and, distinct from these, gas bubbles, from the walls of which bacilli coli communis were cultivated. This, he thought, was an instance of post-mortem gas formation. Bacillus capsulatus aerogenes was not found. He cited two other cases in which the bacillus coli communis was found: one in a woman dead from nephritis, the gas "cysts" being present in the liver, spleen, and lungs three hours after death and therefore probably not due to post-mortem change; the other, a case of gun-shot wound of the abdomen, the bullet passing through the colon and lodging in the pelvis of the right kidney, which showed the "foamy" condition, as did the liver and spleen. It was Dr. Becker's opinion that diabetes was present in most cases where the coli communis caused gas formation. The first two cases were diabetic. In answer to Dr. V. H. Bassett's questions, Dr. Becker said that he did not consider these cases unusual, and that the literature upon the subject seemed to show that the bacillus coli communis was found more frequently than the gas bacillus.

Dr. Harry Greenberg reported a case of *spina bifida*, operated upon with satisfactory results. An unusually intelligent girl, 16 years of age, well developed, good family history. The spinal tumor, situated over the upper lumbar region, had been growing apace with her growth, being at the time of operation about 10cm. in diameter; it was covered by normal skin. There was anesthesia below the tumor and ulcerated surfaces over either nates. She had suffered from incontinence of urine and alternating constipation and involuntary evacuations. The left foot was in a condition of complete pes planus. Knee jerk and ankle clonus were absent. Operation showed the tumor to be a combined myelo-meningocele and lipoma. The cleft was in the arches of the first and second lumbar vertebrae, and triangular flaps from the aponeuroses of the latissimus dorsi muscles were brought down from each side and united with chromicized cat-gut sutures over the defect, after the nerve tumor had been separated from the sac and the lipomatous growth and returned to the spinal canal.

The operation was done two months ago. Now the patient retains urine as long as four hours and controls evacuations, she has perfect control of the rectum, and the ulcerated areas have healed.

Dr. V. H. Bassett exhibited a specimen of an *epithelioma from the oesophagus*, obtained at autopsy at the County Hospital. The patient, a male, 62 years of age, had suffered from increasing weakness and dyspnea for four months. He died the day after admission. Dysphagia was denied; he spoke only in a whisper and was extremely dyspneic. The pulse of the left radial was small and delayed, there was dullness and tubular breathing over the left apex, and a systolic murmur over the aortic region. There was a distinct tracheal tug. In view of the above signs and symptoms, and the otherwise negative findings, the diagnosis of aneurism of the arch of the aorta seemed justified. But on autopsy this growth from the anterior wall of the oesophagus, just out of sight from the throat, pressing upon the trachea down as far as the bifurcation, and satisfactorily accounting for the other symptoms, was found. Tuberculosis of the left apex and terminal broncho-pneumonia were also found.

A. W. GRAY, M. D., *Secretary*.

OUTAGAMIE COUNTY MEDICAL SOCIETY.

The Outagamie County Medical Society held its third quarterly meeting at the Hotel Brouthers, Kaukauna, on December 4th. Fourteen members were in attendance.

Papers were read as follows: *Eye Injuries*, Dr. E. A. Morse, Appleton; *Earache*, Dr. E. H. Brooks, Appleton; *The General Practitioner and the Microscope*, Dr. H. W. Abraham, Appleton. The discussions on these papers were opened by Drs. Scott, Doyle, and Donaldson and engaged in by nearly all present.

Applications for membership were received from Drs. F. E. Donaldson, Eugene Smith and John Reineking.

The next meeting, which will be the annual meeting, will be held at Appleton on March 5th, 1907.

M. J. SANBORN, M. D., *Secretary.*

SHAWANO COUNTY MEDICAL SOCIETY.

One of the best meetings in the history of the Shawano County Medical Society was held at Shawano, Dec. 11, 1906. The meeting was largely attended by the physicians of the county and a number of guests were present, several of whom took part in the program.

Dr. Chester M. Echols of Milwaukee presented some interesting pathological specimens and read a very valuable paper on the *Surgery of the Spleen*, which was especially instructive.

Dr. T. J. Redelings of Marinette presented a paper on *Feeding of Typhoid Fever Patients and Typhoid Convalescents*, which was thoroughly practical and helpful. He spoke of the difficulties met in the care of typhoid patients in private practice and emphasized the importance of their proper feeding.

Acute Dilatation of the Stomach was the title of a very interesting paper by Dr. D. Sauerhering of Wausau. All these papers were discussed at length by the members of the society.

The election of officers for 1907 resulted as follows: president, Dr. W. B. Eicher, Bonduel; vice-president, Dr. L. Rothman, Wittenberg; secretary and treasurer, Dr. W. J. Ragan, Shawano; censor Dr. J. Kern, Cecil, delegate, Dr. W. B. Eicher; alternate Dr. Cantwell. Drs. Riordan and Boyce were elected to membership and applications were received from Drs. Rather and Davis.

After the scientific and business session was ended the entire society, the visiting physicians, and the dentists, lawyers, and druggists of Shawano assembled at a banquet at the Hotel Murdock which was the greatest success in every particular. Dr. Eicher presided as toast-master in the happiest manner and the responses to the toasts were appropriate and eloquent. Splendid speeches were made by Dr. T. J. Redelings of Marinette, councilor for this District, and Judge John Goodland of Appleton. Other toasts were "The Medical Profession", responded to by Dr. W. H. Partlow; "Medicine From a Legal Standpoint" by Mr. E. V. Werner; "The Trials of a Country Doctor", Dr. C. M. Echols, "The Dignity of a Professional Man", Mr. M. G.

Eberlein; "Why are Doctors Poor Collectors", Dr. R. P. Minnahan; and "The Trials of a Young Practitioner", by Dr. J. B. Gordon.

The entire meeting was a great success in every way and will be long remembered.

W. J. RAGAN, M. D, *Secretary.*

WALWORTH COUNTY MEDICAL SOCIETY.

The Fourth Quarterly Meeting of the Walworth County Medical Society was held at Elkhorn, Nov. 14, 1906. The program was a symposium on *Diseases of the Kidney* and was as follows:

1. Anatomy and Physiology of the Kidneys. Dr. W. P. O'Malley, Elkhorn.
2. Acute and Chronic Congestion of the Kidneys and Acute and Chronic Bright's Disease. Dr. Edward Kinne, Elkhorn.
3. Acute Exudative and Acute Productive Nephritis and Chronic Productive Nephritis with or without Degeneration. Dr. S. S. Craig, East Troy.
4. Suppurative Nephritis and Pyelitis. Dr. H. N. O'Brien, Darien.
5. Saccharine Diabetes. Dr. R. H. Rice, Delevan.

Stress of business and other reasons, no doubt good ones, cut down the attendance and made quite a hole in our program, but those who were present were interested in the work, the papers given were well prepared and all were enthusiastic in their work for the county society.

The next meeting will be held at Elkhorn in the latter part of January and the program will be "Diseases of the Stomach."

M. V. DEWIRE, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY.

(Meeting of Nov. 13, 1906.)

Dr. N. M. Black presented a patient 62 years of age who had had epileptic attacks since a sunstroke in 1862; these have been less frequent during the last six years. After the last attack, 6 months ago, he was blind in the right eye for a few days and the external rectus became paralysed. With glasses vision in the right eye is now 6/24, but the paralysis of the rectus persists. The fundus shows nothing abnormal. The treatment employed has been potassium iodid, strychnin, and the faradic current.

Dr. Wm. Ackermann presented a paper on *Enterospasm.* He referred to the fact that the term enterospasm at the present time does not designate any one clearly defined condition. By some it is regarded as a pure intestinal neurosis. The relationship between enterospasm and constipation is important. Frequently it is said that the constipation is a result of the former condition, but by careful questioning it will usually be found that the constipation existed for a long period before the enterospasm made its appearance.

The attacks are characterized by paroxysms of griping, pinching, or colicky pains varying from mere abdominal twitches or discomfort to severe attacks of colic, and are often relieved by the passage of flatus or stool. Hot drinks are usually well borne, but cold drinks and a coarse diet are frequently followed by severe pain.

The colon may be felt as hard and contracted in portions or throughout its length. The stools are thin and elongated and often show an abnormal amount of mucus.

The attacks may last a few days or several weeks and may recur three or four times during the year, while in the intervals the patient may be free from all distress excepting the nervousness, constipation, and occasional slight pain. One form is characterized by making its appearance regularly during the last few days of menstruation.

In the treatment the diet is of great importance and should consist of foods causing little mechanical irritation. Massage, purgatives, astringent injections, and the faradic current are contra-indicated. Warm applications to the abdomen, the galvanic current, and high enemas of olive oil are useful aids to treatment. Mineral waters, especially if taken hot, are often of service. When the pains are severe belladonna will often act more efficiently than opium.

The paper was discussed by Drs. Washburn, Neilson, Patek, Lademann, and Nichols.

Dr. H. B. Hitz, reported a case of *Cerebellar Abscess of Otitic Origin*, occurring in a boy of twelve, who had had discharging ears for two years. One week before the appearance of symptoms he had had a severe fall, striking his head in the mastoid region. This report will be published later.

The paper was discussed by Drs. Yates, Black, Rogers, and Seaman. The necessity for continuing treatment in all cases of otitis until a cure is obtained was emphasized by all the speakers.

(Meeting of Nov. 27, 1906.)

Dr. J. L. Yates presented a paper on *The Pathological Basis for a Rational Curative Treatment of Malignant Disease of the Breast.*

After a review of the anatomy and physiology of the region, with especial attention to the lymphatics, he brought out with emphasis the danger of early metastasis to inaccessible areas and the necessity for radical operative measures at the earliest possible moment, removing a large area of skin, the entire breast, the pectoral muscles with their fascia, the contents of the axilla, and the lymphatics in the area between the vein above and the lower level of the costal attachment of the latissimus dorsi below and from the sternum anteriorly to the deepest part of the space between the latissimus dorsi and serratus magnus posteriorly. Supplementary treatment by X-ray exposures was advocated particularly when it can be given before the wound is completely healed. This paper will be published in full in the JOURNAL.

The paper was discussed by Drs. Beffel, Reineking, Greenberg, Madison, Foerster, Shimonek, Gaenslen, Bassett, Walbridge, Ruhland, and Nichols.

Dr. V. H. Bassett demonstrated the heart of a calf in which the bundle of His had been dissected out, showing this structure with the greatest clearness. He spoke of the pathological changes which take place in this bundle in Stokes-Adams disease, giving rise to heart block.

Dr. J. M. Beffel exhibited the esophagus and stomach from a man who had committed suicide by swallowing carbolic acid.

H. E. DEARHOLT, M. D., *Secretary.*

BOOK REVIEWS.

The Prophylaxis and Treatment of Internal Diseases. By FREDERICK FORCHHEIMER, M. D., Cincinnati. 650 pp. $5.00. D. Appleton & Co., New York, 1906.

Almost without exception the authors of text-books on diagnosis and the compilers of systems of medicine, of which we have had a surfeit in the past decade, have given but scant consideration to the treatment of diseases, having contented themselves with generalizations of mere suggestions. Dr. Forchheimer's work is a valuable complement to these standard text-books. It supplies helpful information to the physician who feels that his patient has a claim upon him that is not satisfied with a stimulation of his vanity at having arrived at a correct diagnosis.

The book deals with the prophylaxis and treatment of internal diseases, and under headings such as Specific Infectious Diseases, Constitutional Diseases, Diseases of the Blood, of the Digestive, Respiratory, Circulatory organs, etc., the therapy of all the diseases classified in our well known text-books, receives proper consideration. The feature which, above all others, makes this book so attractive and instructive, is an absence of a maze of vague suggestiveness that merely confuses but does not enlighten; on the contrary, the author is explicit in his instructions, direct and specific in his statements. Each disease is considered first from the standpoint of prophylaxis, then follows the general and specific treatment, and the treatment of the convalescent stage. An appendix is added, containing useful information as to dosage, and a list of prescriptions which the author has found helpful.

A perusal of its pages forces the conclusion that the author's experience has been large, that he is possessed of rare good judgment, and that his views are broad and liberal—thus explaining a personal success which is reflected in this product of his pen.

There is so much to be said that is praiseworthy that we hesitate to call attention to the existence of grammatical inaccuracies. However, they in no way detract from the value of this work.

Dr. Forchheimer's book well justifies the claim of the publishers that it is an eminently practical work, a work of breadth, and of experience. We know of no work that will prove more helpful in the treatment of internal diseases, and recommend it unqualifiedly as a most excellent complement to our standard modern textbooks on diagnostic medicine.

Paper and print are in keeping with the excellent reputation of the publishers. *A. J. P.*

Essentials of Human Physiology, by DR. NOEL PATON, M. D., B. S. C., F. R. C. P., Edin. Second Edition—revised and enlarged. Wm. Green & Sons, Edin. and London. W. T. Keener & Co., Chicago.

The object of this volume is to put before medical students as succinctly as possible the essential facts of human physiology, and to emphasize especially those facts of the science which are of cardinal importance in medicine and surgery. These requirements as set forth in the preface are most admirably met, all laboratory detail and description of experiments and apparatus

being omitted in the text, the intention being to give the more didactic portion of the subject in an easily comprehensible way. The volume would thus, if supplemented by a laboratory manual, make a complete treatise of the subject. Of the more recent work in physiology the subject of immunity is touched upon perhaps too lightly, and yet in a way easily understood. The subject of *heart-block* and the more recent investigations on the nervous mechanism of the heart as influenced by lesions of the bundle of His, are neglected. For students, however, the value of the work is unquestioned. (C. H. S.)

Recent Advances in the Physiology of Digestion. ERNEST H. STARLING, M. D., F. R. S., Jodrell Professor of Physiology, University College, London. 147 pp. W. T. Keener & Co., Chicago. Price $2.00 net.

The enormous stimulus given to the study of the physiology of the digestive system by the work of Pawlow has resulted in many advances beyond the fields which he explored and opened to the student of internal medicine. It is impossible for the general practitioner to follow all the work that is being done and this book serves well to present the progress that has been made in a clear and authoritative manner, for the author himself is one of those who are "making history" in the physiological laboratory.

The chapters on the "Mode of Action of Ferments" are a clear presentation of our present knowledge of this difficult subject. The demonstration that the continued secretion of gastric juice, after the "psychic secretion" has ceased, is due to chemical and not nervous stimulation, is of great interest. And the discovery that the activities of the pancreas, the liver, and the intestinal glands are called forth in a similar manner by chemical messengers or "hormones" is of vital importance, for by their detection and isolation we may later be able to influence the growth and activity of the majority of the organs of the body.

All this recent work has a direct practical bearing on the problems of internal medicine and this side of the subject is not overlooked. The book well repays careful study. (A. W. M.)

American Practice of Surgery.—A Complete System of the Science and Art of Surgery, by representative Surgeons of the United States and Canada. 8 Volumes. Vol. 1. 1906. Wm. Wood & Co. Edited by DRS. JOSEPH D. BRYANT and ALBERT H. BUCK, of New York City.

Judging by the first volume of this work, its claim to completeness certainly seems amply justified. Dr. Bryant, the editor of Bryant's Text-book of Surgery, and president-elect of the A. M. A., surely needs no introduction. Dr. Buck, the editor of the Reference Handbook of the Medical Sciences which was accorded such an enthusiastic reception at the hands of the entire medical profession, is equally well known. With such men as editors one may feel assured that the work is all that is represented.

Volume 1 comprises 818 octavo pages and takes up the general phases of surgery. The introduction by Dr. Stephan Smith merits very careful perusal. It presents the influence and work of the American surgeon in the development of present day surgery. The average medical student of to-day is a seeker of practical knowledge, and is usually satisfied if he can master the

essence of the practical side of his subjects. While this is the natural and also of the history of a subject, and especially of the influence of his own countrymen.

There are 96 contributors to the entire work and fifteen to the first volume. They are chosen for their special qualifications in their respective fields and from every portion of the country, giving the work a national character. While there are a host of books on special subjects, especially on diagnosis and treatment, the completeness of the present work in that it includes all phases, promises to make it one of the favorites of the profession. It is impossible to review minutely the individual contributions to this volume; suffice it to say that the high standing of the respective contributions stamp them with authority. The illustrations are very numerous, clear cut and executed on good paper, while the radiographic plates merit special mention. Certain it seems that no effort has been spared, and the publishers, Wm. Wood and Company, also deserve great credit for the excellence of the mechanical execution. (F. J. G.)

Operative Gynecology. By HOWARD A. KELLY, A. B., M. D., Professor of Gynecological Surgery in the Johns Hopkins University, and Gynecologist to the Johns Hopkins Hospital, Baltimore. Second Edition. D. Appleton & Co., Publishers, New York, 1906.

This, the second edition of Dr. Kelly's well known work, is in reality a new book, as nine years have elapsed since the appearance of the first edition. During these nine years many new methods of diagnosis and treatment have been devised and amplified by Dr. Kelly, especially in the cystoscopy of the female bladder and the diagnosis of ureteral and pelvic calculi.

The newer instruments and technic are carefully described so that the average studious gynecologist, by purchasing the necessary equipment, is enabled to enter a field which before has been open to the comparatively few who have been fortunate enough to be directly associated with this great teacher. The scope of the work has been enlarged by the introduction of a chapter on Local and Palliative Treatment, Displacements, Pessaries, and Menstruation and its Anomalies. These chapters are rather short, and are written, as the author states, "for the benefit of the general practitioner." Their brevity is perhaps the best expression of the way the author looks upon gynecological tinkering.

The advance in bacteriology and the use of the X-ray in the diagnosis of renal calculi, have been contributed by Dr. W. W. Ford and Dr. F. H. Baltjer, respectively.

To the second edition two hundred new illustrations have been added, for the most part by Prof. Broedel, who is "Associate Professor of Art applied to Medicine" in the Johns Hopkins University. The illustrations add much to the value of the work and clearly demonstrate the value of the comparatively new chair in a large university. Art applied to medicine is one of the advances which caused Prof. O. von Rosthorn in his recent article to say that "American gynecologists are studying the various questions of the day and striving to perfect themselves in all directions."

In the second volume a new chapter has been added on Extirpation of the Cancerous Uterus. Here also we find a chapter on conservative opera-

tions on the tubes and ovaries, a careful perusal of which would be of decided benefit to most gynecologists and general surgeons.

This last edition of Kelly's Gynecology may be highly recommended as a guide to all who desire to become conversant with newer methods in this branch of operative work. (G. A. C.)

Theodor Billroth's Principles of Surgery.—"Die Allgemeine Chirurgische Pathologie und Therapie in 51 Vorlesungen." A handbook for Students and Practitioners, by THEODOR BILLROTH, late Professor of Surgery at Vienna, and ALEXANDER VON WINIWARTER, Professor of Surgery at Luettich. 16th edition. Berlin, Georg Reimer, 1906. 15 M. ($3.75.)

To see a new edition of Billroth's celebrated book, makes one envious of those who will have the pleasure of reading it for the first time. By its thrilling force and beautiful style, for many years it inspired thousands and thousands with interest and love for surgical science and spread the fame of the great master over the whole world.

In 1880 Billroth found it impossible to prepare a new (9th) edition, as his practice and other duties absorbed his time to such an extent that he felt unable to follow up the progress of other branches of medicine which a critical utilization for such a book required. He therefore took leave from his readers as author and laid the further revisions into the hands of his pupil and friend, Prof. A. von Winiwarter. The spirit and the vivid presentation of the subject have remained the same, but in careful response to the demands of new generations, by guarding against senescence and keeping it abreast of the times, the present author has greatly enhanced its value.

As the work has been out of print for a number of years, the appearance of the new, 16th edition, will be especially welcome. Remodeled throughout, it will be sure of the highest appreciation of the physicians at large who will be delighted to read the classical book in its modern form. Paper and print are excellent. (C. Zimmermann.)

Essentials of Medical Electricity.—By EDWARD REGINALD MORTON, Medical Officer in charge of the Electrical Department, London Hospital, etc. Henry Kimpton, London; Keener & Co., Chicago.

This little book will be found of unquestioned value to the practitioner interested in electro-therapeutics. In a clear and concise manner the physical properties and manifestations of electricity are discussed, and without too great technical detail the reader is carried through the various means and apparatus used in electro-therapeutic manipulations. The use of sinusoidal currents, of high frequency currents, of electro-catalysis, etc., are explained in detail. (C. H. S.)

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ORIGINAL ARTICLES.

THE PATHOLOGICAL BASIS FOR A RATIONAL CURATIVE TREATMENT OF MALIGNANT DISEASE OF THE BREAST.*

By JOHN L. YATES, Ph.B., M.D.

MILWAUKEE.

This consideration is limited to that class of cases in which the disease is still eradicable. Rational curative treatment is to be understood as a procedure which will guarantee to each individual every opportunity for a cure, whatever may be the nature of the involvement, so long as that cure is an operative possibility. Whenever complete extirpation is impossible, any operation *per se* can be but palliative in its ultimate results. Since a cure may be assumed to depend upon the removal of the disease while still localized within certain limits, no rational operation can be expected to effect more than this local relief. It therefore follows that the efficacy of such an operation can be measured only in terms of its ability to prevent local recurrence. If then, it is possible to determine the nature and location of the primary affection, *all* of its paths of dissemination, and to recognize when it has reached ineradicable limits, it is reasonable to assume that a suitable curative operation should be the logical conclusion.

Modern surgical therapeutics has become dependent upon living pathology as opposed to the post-mortem pathology so predominant but a few years since, and in no form of disease has this influence been of relatively more importance than in the prophylaxis against and the treatment of malignant disease. This living pathology, as its name implies, embraces the other so-called scientific branches,

*Read before the Milwaukee Medical Society, Nov. 27, 1906

especially anatomy and physiology, and as an appreciation of certain anatomical and physiological details is of fundamental importance in establishing an accurate comprehension of the surgical pathology, these will be given immediate consideration.

ANATOMICAL. The usual conception that the mammary gland is sharply defined has been shown to be entirely erroneous by Heidenhain (Arch. f. Klin. Chir., 1889, XXXIX, 97), and again more recently by Oelsner (Arch. f. Klin. Chir., 1901, LXIV, 134). There are extensions of parenchyma along the ligaments of Cooper which may reach almost to the papillary processes of the skin. Similarly there are parenchymatous prolongations downward toward or even into the pectoralis major muscle and others radiating outward into the fat.

These radiating prolongations are especially well developed in obese women and particularly at the puerperium.

The indefinite limitation of the gland falls over the inner and lower quadrant, here the demarcation from the fat is fairly sharp and the gland is more closely adherent to the deeper fascia—being bound down by fibrous bundles, the submammary ligaments. Cancer at this location is usually destined to early deep adhesions.

Since cancer may begin in any part of the breast, and since no part of the breast harboring a cancer may not be involved by the time the tumor is recognized, it follows from the topography of the mammary parenchyma that the lymphatics draining a very extensive mass of tissue are to be suspected of already containing malignant deposits in such cases. These include the lymphatics of more than the overlying skin, of the surrounding subcutaneous fat, of all the breast tissue and of the underlying pectoral fascia and muscle.

LYMPHATICS. The following summary is based upon experimental and pathological observations of several investigators.

Skin. The lymphatics of the cutis are made up of two superimposed networks, the more superficial is the finer. From each arise efferent trunks, leading to the axilla, which however occasionally reapproach the skin and through them small areas of the deeper network may be injected. (Oelsner thinks this may explain some skin metastasis.) There is free anastomosis between the two body halves in both the deep and superficial networks. Rarely lymph vessels lead to the opposite axilla from certain skin areas not at the median line. From the upper mesial aspect of the chest lymphatics lead upward in front of the clavicle to supraclavicular glands. None was demonstrated leading to the groin.

Fat. It is physically almost impossible to inject the lymph vessels in this tissue and it is assumed that they accompany the blood vessels to enter the axilla and the thorax.

Breast. After arising in the substance of the gland the lymphatics run towards its surface, here being fused into the efferent channels. The axillary are the main vessels, the more superficial accompanying the skin lymphatics, the deeper lying upon the pectoral fascia. Other constant but smaller efferent channels leave the lower surface of the breast, follow the perforating branches of the internal mammary artery and empty into the glands of the anterior mediastinum, and still others follow the intercostals toward the spine.

A fairly constant and a most important vessel runs from the base of the breast, perforates the pectoralis major, extending between it and the minor and upward along the chest wall below the attachment of the major muscle to enter the anterior mediastinum through the second interspace.

Muscle. Great difficulty was encountered in injecting these vessels. One set of lymphatics runs parallel to the muscle fibres towards the sternum, and close to its margin they perforate the intercostal spaces to enter mediastinal glands. Ludwig, Schweigger-Seidel and Rotter believe that the flow of lymph in the most superficial part of the muscle is toward the fascia. The lymphatics of the clavicular portion empty into retro-pectoral glands, the manubrial attachment drains anterior to the clavicle into superclavicular glands. The muscular and deep mammary branches probably drain the pectoral fascia.

Glands. These may be divided more or less arbitrarily into groups, but without any practical advantage. The real therapeutic importance lies in their complete removal. As will appear later the location of their outermost limits in respect to the field of operation is sufficiently accurate for present purposes. They extend the whole length of the big vessels, especially in opposition to the vein, from the base to the apex of the axilla, above; posteriorly in the cellular tissue between the anterior surface of the scapula and the serratus magnus muscle and mesially along the wall of the thorax beneath the attachment of the pectoralis major muscle, along the superior thoracic, internal mammary perforating branches and between it and the minor. Atypical glands may occur in many places but are usually of less operative significance. The glands in the posterior cervical triangle are always open to involvment from below.

PRINCIPLES OF LYMPHATIC INVOLVMENT. It is universally recognized that cancer tends to spread by the lymphatics and that the

lymph channels lead through lymph glands which have incidentally a filter-like function. The lymphatic should be regarded as a closed system, lined throughout by endothelium and with a normal tendency to maintain a current in one direction as is indicated by the acute angle anastomoses of the larger vessels and the development of valves within them.

Oelsner (Arch. f. Klin. Chir., 1901, LXIV, 134) has shown that there is an inherent tendency for certain lymph channels to drain certain areas and to terminate in certain glands. These areas are not distinct but freely anastomose with adjacent areas particularly through the finest channels or radicles at their periphery. Should the efferent channel of such an area become occluded it would naturally follow that there will be attempted the formation of a compensatory circulation through the nearest area in anastomatic contact and possessing a free efferent vessel. Thus the lymph collecting distally to the point of occlusion would come to pass in a direction opposite to normal, backward from larger to smaller channels, through the anastomosing networks of the radicles of adjacent areas, and finally flow again towards the center through unusual channels and glands. Evidently every lymph channel is provided practically with a filter at each end, proximally the normal lymph gland, distally the network of lymph radicles at the periphery. Such filters may not always intercept embolic cancer cells which frequently escape these first sets of obstructions to be arrested by others beyond.

The principles of this conception of the arrangement and behavior of the lymphatics will greatly aid in understanding the irregularities of the clinical observations upon the progress of the disease, offer a ready explanation for many operative failures, and aid greatly in the comprehension of rational therapeutics.

PATHOLOGY. In discussing malignant disease of the breast, it is entirely justifiable to exclude sarcoma and endothelioma, not alone because of their relative rarity but also because their treatment should be, in general, identical with that of carcinoma. It is not within the province of this paper to attempt to distinguish the different types of cancer and their relative degrees of malignancy. Safety will be enhanced by the assumption that any cancer is, if unchecked, a mortal affection wherever it appears and that all are equally malign. There is demanded now but a statement of the comprehension of the disease and the clinico-pathological data upon which this paper is based to justify the minimum requirements herein assumed, for the above defined rational curative treatment as a routine procedure.

GENERAL CONSIDERATIONS. Carcinoma mammae is here regarded as arising from glandular epithelium of normal, accessory or para-mammary tissue. Having arisen, the growth increases only from itself, in Ribbert's sense. That is, every essential element originates from the primary tumor or more indirectly from other elements which thus originated. Therefore any secondary tumor that is attributable to the primary neoplasm is a part of it and in no sense formed *de novo*. Accordingly the disease is at its inception perfectly focalized. No assumption can be made as to how long this limitation persists, but on the other hand *no carcinoma is too young not to have lost this restriction*. i. e. to have already spread from its point of origin.

The malignant nature of the disease is manifested by the invasion of surrounding tissues (including vascular units) through direct extension or growth by continuity, and by the resulting transplantation or metastasis of tumor seeds to more remote tissue, carried through the blood or lymph streams as emboli. It is improbable that every cancer cell thus coming into relationship with uninvolved tissue is either capable of reproducing or does reproduce a secondary tumor, yet on the other hand it is perfectly possible that any such cell may possess and exert this capability. As a consequence of each increase in size of the primary tumor being accompanied by a wider invasion of the surrounding tissue, there is an ever increasing liability to metastasis. Moreover, every secondary or metastatic tumor possesses to some extent all of the malign characteristics of the parent tumor so that each may become capable of independent invasion or metastatic growth in nearby or distant tissue, and so *ad infinitem*. As a matter of fact, such wide spread dissemination as this implies seldom actually occurs, at least in the early stages of the disease, but from a clinical standpoint, in any case however early, every possible path of transmission must be suspected and *treated as if already involved*.

SPECIFIC CONSIDERATIONS. The following data have been obtained from a review of the many hundreds of cases reported in the last twelve years and from personal clinical and pathological experience in hospitals where the breast material was sufficiently large and varied to warrant at least my own acceptance of the convictions thus gained. The statistics published from various clinics are almost worthless for direct comparison but may be accepted as establishing certain broad facts which are, however, open to individual interpretation. It must be constantly borne in mind in the following attempt to show the frequency and rate of involvement of the various tissues open to infection from the breast focus, that statistics are to a great

extent based upon the histories of patients taken at the time of operation, which has been found to be on the average from ten to twelve months after the tumor was first noticed. The paths of extension to and from these structures have already been outlined. The limits to which each may be involved before curative treatment becomes certainly impossible has been established by the results of operations reported from various clinics.

Breast. By the time a cancer is demonstrable in any part of the mammary tissue this is all to be suspected and for two reasons: (1) microscopically, the disease may have extended to its outmost limits in any direction, and (2) though a rare exception it must be recognized that multiple primary carcinomatous foci may be found throughout the entire parenchyma. Therefore every lymphatic channel that may normally or abnormally be the efferent vessel from any part of the entire mammary tissue is to be held guilty until proven innocent. This proof lies only in the test of time after removal and thus it has been demonstrated with dreadful certainty that none is always uninvolved.

Limits of eradicable involvement. No tumor of the breast, however large, is necessarily incurable, indeed many of the largest tumors with little extra-mammary extension give a particularly hopeful prognosis.

Axillary Glands. Frequency. These were found to be palpable in over 80 per cent. of the cases. They were deemed to be carcinomatous in from 83 to 100 per cent. Unless the entire axillary contents has been subjected to microscopic examination by serial sections, negative evidence is worthless except from the standpoint of prognosis.

Rate. There is little positive evidence as to how early the axillary glands may be involved, certainly by the time the tumor is noticed as has been shown by the observation of Warren and others.

Extension. This most commonly takes place from the axillary directly to the cervical glands. Indirectly, through a blocking of the normal current toward the axilla, extension to other glands in the same and anastomotic circuit is favored.

Limits. The extent of the axillary involvement alone will rarely be the only pre-operative index of incurability. During the operation, however, adhesions to the vein or the involvement of the uppermost glands signify that the disease is probably hopelessly disseminated.

Cervical Glands. These were found palpable in ten per cent. and appeared eight months later than the axillary. At least 50 per cent. of these enlargements were due to cancer.

Limits. No case of permanent cure after the cervical glands had become involved is recorded, and though their excision is always demanded, such a procedure in the majority of cases can only be palliative.

Retro-pectoral Glands. These glands lie along the thorax just below and external to the sternal attachment of the pectoralis major and between it and the minor. Rotter (Deut. Med. Woch., 1889, XXV, V. Beil, 41) found them involved in eleven out of thirty-three cases and concluded that they were invaded as early if less infrequently than the axillary. This is particularly true of the glands lying just at the upper margin of the minor muscle. These I have twice found to contain the only macroscopic metastases in early cases.

Limits. At present there is nothing to indicate the effect of this form of extension upon the prognosis. A priori it can be assumed that any farther extension could readily reach mediastinal glands, thus making the outlook less favorable.

Glands Beneath the Latissimus Dorsi. There is nothing upon which to base any definite conception of the frequency or rate of involvement of these structures. They are occasionally found at operations especially on the anterior aspect of the scapula, and the too common occurrence of paraplegia dolorosa is held at present to indicate their existence at a lower level.

Skin. Frequency. Visible involvement of the skin depends upon the occurrence of discrete metastases or the direct extension of the tumor with the formation of adhesions. The latter is a common but rather late manifestation occurring in about 47 per cent. in ten to fourteen months, in 20 per cent. ulceration occurred, but often somewhat later.

Rate. How early the skin is microscopically involved and how widely, it is impossible to tell. This much is certain, the frequent recurrence of the disease in the skin, at or near the operative wound in early and really favorable cases is unanswerable testimony, so ubiquitous and so often repeated that none should attempt to plead ignorance.

Extension. This may take place in almost any direction, superficially or deeply, and is another indication of the grave danger in this structure.

Limits. When the tumor has become adherent to the skin the prognosis is rendered less favorable but not hopeless, even if ulceration has taken place. The occurrence of discrete lenticular skin metastases, however, at once indicates that the disease is ineradicable. It is

the confluence of many of these metastases that produces *carcinoma en cuirasse.*

Fat. This is the most dangerous extra-mammary tissue not alone because it is so commonly directly invaded but because it always contains lymphatic structures that are probably or certainly cancerous.

The frequency rate and significance of the direct involvement is not known but is of little interest or value beyond the facts just stated.

Fascia. This structure is invaded earlier and more frequently than is the skin and contains malignant deposits long before there are demonstrable adhesions between it and the tumor. As even microscopic involvement of the fascia indicates extension to the underlying muscle they will be considered together.

Muscle. Frequency. The only absolute external evidence of invasion of the muscle depends upon the existence of deep adhesions of the growth. This has been estimated to have occurred in about 30 per cent. and in from eleven to twenty-one months. As already indicated, microscopic involvement of the muscle or the inter-muscular septa is far more frequent. Heidenhain demonstrated, in cases operated upon by Küster, that in spite of the most painstaking dissection of the fascia from the muscle, cancer was left behind in 66 per cent. of the cases, which was confirmed by the subsequent appearance of local recurrences in these individuals. Isolated nodules may occur in the muscle before adhesions have formed and even in early cases.

Rate. It is quite impossible to say just how early the fascia and muscle are invaded, but it is a fact that this extension has antedated the discovery of the tumor and in cases where other involvement was very limited.

Extension. This may be toward the axilla, the mediastinum or the spine, and is thought to be favored by the inherent activity of the muscle.

Limits. When the tumor has become directly adherent to the muscle the outlook is extremely unfavorable but not invariably hopeless, as is the case when adhesions to the chest wall have occurred, which happens in 4 per cent. of the late cases (28 months).

TREATMENT. Pathology teaches that the cure of cancer depends upon the complete destruction of the malignant tissue, which so far as known, invariably follows but one method, extirpation. Surgically this complete excision can only be accomplished by the removal of an unbroken surrounding layer of healthy tissue. Practically this can only be effected by *the removal in one mass of all the tissues that might be involved.* Efficient treatment of curable cancer depends upon con-

sistent radical thoroughness, no operation being more efficacious than its one careless or conservative misstep. It will not profit any individual to be flayed if an infected gland be left in the axilla, nor will the most painstaking deeper dissection bring forth a cure if the evil seed of further recurrence is left in the skin margin. The time to get a cure is at the first operation, and if any man is unwilling or incompetent to give his patients that chance, he is, if our premises are correct, open to the charge of committing murderous malpractice in the application of incomplete methods, even if this be done through ignorance.

The application of the principles of surgical pathology is simple —while the disease is within certain limits it is curable if the entire tissue within them is extirpated. Having outlined these limits in so far as they are now recognized the excision may be properly considered.

Skin. Three essentials are required in the incision: it must provide for the removal of the dangerous area of skin, give ready access to the entire field of operation, and permit a satisfactory reconstruction of the axilla in the closure. The most important point is the amount to be removed. Experience has taught that the only danger lies in taking away too little. Slightly more than the area covering the breast proper should always be sacrificed, and when the tumor is at the margin of the gland and especially if adherent to the skin, more should be taken. Rotter advises going at least three fingersbreadths farther out around this portion. In general, any wound that can be completely closed without resorting to some form of plastic operation indicates that too little skin has been removed.

Fat. This is the most dangerous tissue and must be treated accordingly. The margins of the skin incisions have to be reflected to expose the field of operation, and if this dissection is made subcutaneously then the whole panniculus overlying this field may be excised. This will add to the prospects of a cure and facilitate the closure and subsequent healing of the wound.

Breast. Moore in 1867 first advised removing the entire gland; now it is recognized that this removal must be so radical that no trace of mammary tissue is visible during its excision.

Fascia. Volkmann in 1882 began the routine removal of the covering of the pectoralis major. Heidenhain's work proved this to be ineffectual, so that it is now properly removed with the muscle.

Muscles. Banks in 1867 advocated the excision of the muscle when the tumor was adherent to it; Halsted advised it as a routine

step in 1888. This excision of the major muscle is demanded because it is frequently involved even in early cases, and because, if not removed, underlying tissues even more liable to early involvement cannot be reached. The sternal portion alone requires removal in the curable cases.

For somewhat similar reasons the minor should also be sacrificed, and, in addition, its preservation adds nothing to the use of the arm and does interfere with healing.

The muscles may be removed by first severing their origins in dissecting from below upwards, or their insertions may be divided first in working away from the axilla. By the latter method it is possible to work more rapidly because of the less hemorrhage and to sever the main lymphatic connections before there is any manipulative traumatism to the tumor, which can be reduced to a minimum only with the greatest care, but never entirely eliminated.

Lymph Glands. Axillary. Volkmann began the excision of lymph glands palpable at the operation, and in 1883 Küster first advised a thorough routine removal of the axillary contents.

In any case, however early, every bit of the axillary tissue is directly or indirectly dangerous. The removal may be accomplished from above downward at the beginning of the deep dissection, or in the opposite way at its conclusion. In addition to the reasons given above, it may be urged in favor of the former method that early in this operation one is apt to be keener, and as this is the part requiring the greatest care it can probably be accomplished best at the outset. Properly done this axillary dissection is tedious; every bit of tissue to be sacrificed should be removed at the first attempt, and this includes all the fat from the vein downward. The dissection can be effected more thoroughly and more rapidly by combined gauze and instrumental methods. No nerve nor blood-vessel traversing the axilla is essential and danger attends attempts at their preservation.

Extra-Axillary Glands. The failure to remove these glands has forfeited many lives and it can be done so readily and rapidly that this neglect is inexcusable.

By gauze dissection the retro-pectoral fat and cellular tissue with its extensions can be wiped away over an area extending from the vein above to the lower level of the costal attachment of the latissimus dorsi below, and from the sternum anteriorly to the deepest part of the space between the latissimus dorsi and serratus magnus posteriorly, thus exposing the surfaces of the intercostal, external oblique, serratus magnus, latissimus dorsi and subscapularis muscles and the periosteum

of the ribs. The only care required is in not tearing off the perforating vessels so that they cannot be ligated, and in pulling the periosteum from the ribs by too severe traction at the origin of the minor muscle.

Closure. This may be effected by some form of plastic surgery or grafting, or a combination of these methods. Grafts suitably cut and applied will in the majority of cases be found the least unsatisfactory in the long run. Drainage is safer and therefore indicated. It is very satisfactorily obtained by small soft tubing inserted through a small stab wound near the lower posterior limits of the operative field. The primary discharge of serum has ceased in twenty-four hours when the drain should be withdrawn. Otherwise it will become an irritating foreign body interfering with proper healing.

SUPPLEMENTARY TREATMENT. Nothing that will add to the efficacy of purely operative treatment should be omitted, and in the X-ray there is an adjunct of unquestionable value if properly given. Acting purely as a curative agent it is worse than useless, yet its beneficial effect upon recurrences has often been marvelous. Much more may be expected of it if these recurrences can be nipped in the bud. As they may result either from cancer cells not excised or those reimplanted upon the surface of the wound during operation, this indicates that a little more than the entire field of operation should be exposed. This treatment should be instituted as soon after operation as possible, particularly if it can be given through a partially closed wound. By far the best results will be obtained if the ray is given by the repeated exposure of limited areas to the maximum limitation of individual toleration.

The general health should receive suitable attention and the individual urged to resume activity as soon as possible.

RESULTS. The proof of the pudding is in the eating, but the enjoyment of the eating depends upon appreciation of the pudding in question. As already indicated a permanent cure can be expected only while the disease is sufficiently localized, and surgery must not be expected to accomplish the impossible where ineradicable but unrecognizable dissemination has occurred. On the other hand a rational operation must be expected to produce a local cure under these conditions. Following incomplete operations, usually without excision of the muscles, local recurrences appeared in 85 per cent. of the older series of cases and in 45 to 49 per cent. of the more modern, as opposed to six to nineteen per cent. after the more complete operation. The operative mortality should not exceed one to two per cent. under

proper precautions, as opposed to 100 per cent. without operation. The unoperated cases die in from twenty to twenty-eight months, the operated but uncured cases in which the disease recurs in less than three years (many do not) live thirty to thirty-eight months.

CONCLUSION. The local reappearance of the disease (i. e. in the field of operation) in these favorable cases has but one explanation: the treatment was faulty. No justification can be found for incompleteness. The danger of death from the operation is negligible, the impairment in the use of an arm is of no moment compared with the sacrifice of life. Utmost conservatism demands the greatest rational, operative radicalism, and this finds its absolute indication in the so-called favorable cases. Unfortunately the greatest enemy to success, delay, is as yet largely uncontrollable.

THE DIAGNOSIS AND TREATMENT OF INJURIES TO THE EYE.*

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I make no apology for bringing this subject before the society, made up as it is so largely of men who are interested in all of the various branches of medicine and surgery. It has always seemed to me that the great importance of the visual organ and the vital interest which attaches to an injury of these parts, justify any attempt at intelligent discussion of the matter before any medical society. The general practitioner is too apt to regard an injury to the eye lightly, and too prone to forget the fact that he is the man who is most frequently consulted first in these cases, and that upon his prompt and intelligent action at the outset the integrity and safety of the eye often rests.

In this wonderfully progressive age of manufacturing and railroad development numerous accidents are daily occurring in every center of industry, a considerable portion of which are injuries to the organ of sight. The means by which such injuries are occasioned are as many and as varied almost as are the injuries themselves, and no time will be devoted to the consideration of this aspect of the subject. Moreover, in the limits of this short paper it would be quite out of

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the question to consider the matter in any great detail. I will therefore confine myself to some of the more common injuries and to the more general aspects of the subject.

The correct diagnosis and treatment of ocular injuries must of course be largely based upon the general principles of surgery and a correct application of the various methods of examination and treatment suggested by these principles.

The strong bony orbital margins are well adapted to protect the eyes from injuries caused by blows, and the eyelids and lashes form admirable protective coverings which are highly sensitive and the subject of wonderfully active reflexes. The prompt and complete closure of the lid and simultaneous rolling up of the globe when a blow or missile is perceived, are efficient agencies in preventing many injuries to the eye, and when, notwithstanding these protecting guards, a foreign body enters the eye, the sensibility of the organ is so great that there is immediately an increased flow of tears which often washes the offending substance out. If this does not occur there is generally an insistant demand for relief.

A complete history should be obtained in every case of injury, if possible, which naturally would include the exact means by which the injury was inflicted, and the exact nature of the instrument, tool or material which caused the injury. In the examination of an injured eye nothing should be taken for granted; the examination in all cases should be thorough and satisfying, even though it is necessary to use an anesthetic, local or general, to accomplish this result.

Certain symptoms in varying degree are the almost constant accompaniment of ocular injuries. Pain, congestion, hemorrhage, swelling of the lids and conjunctiva, edema, photophobia, lachrymation, loss or diminishment of vision, deviations of the normal pupillary conditions and reactions, protrusion of the eyeball, deviations from the normal sensitiveness, together with the special physiological and anatomical effects of the wound itself, go to make up the picture of ocular injury according to its nature and extent in the individual case.

Owing to the rich and efficient nourishing blood supply, and the ofttimes protective and disinfective qualities of the secretions, the eye probably presents the wonderfully reparative powers of nature to a greater degree than any other organ in the body, and there is no other organ in which the processes are more interesting or where they may be more easily or more conveniently observed.

By far the most common injuries to the eye are those produced by *the lodgment of a foreign body,* ofttimes a simple matter in itself

but one which may produce serious results through the medium of infection. The foreign body causes an abrasion of the cornea, a chance for infection is provided, ulceration may take place, and thus it is readily seen how a trivial matter may become one of great consequence. Foreign bodies in the cornea or in the conjunctival sac should never be allowed to remain any longer than is absolutely necessary, and they should be removed in the proper way and by the proper means. If in the conjunctival sac, they may often be washed out by a stream of water, or perhaps better a solution of boric acid, or brushed out with a cotton wound applicator. If the foreign body is on the cornea it will generally be necessary to make use of a spud or similar instrument and remove the offending particle with as little damage to the cornea as possible. This can only be done properly in the majority of instances under a local anesthetic—4 per cent. cocaine solulution or 1 per cent. holocain. I prefer the holocain because it does not disturb the corneal epithelium as does cocaine, and moreover, it has some antiseptic power. It is a mistake to attempt the removal of a foreign body imbedded in the cornea without good illumination; if day light is not available one should be provided with a good artificial light and a lens for oblique illumination. The lodgment of a foreign body upon the cornea nearly always causes an abrasion of the epithelium, and every abrasion should be regarded as a chance for infection and the possible site of an ulcer.

Under certain conditions the eye is an excellent field for the development of pathogenic germs, and it is always wise to assume the necessity of the use of strict asepsis and antisepsis in dealing with any injury, at the same time bearing in mind the fact that the measures used must have due regard to the delicate structure of the organ. As a cleansing antiseptic there is nothing better than a saturated solution of boric acid, or 1 to 8000 bichloride or 1 to 3000 cyanide of mercury, and as an antiseptic a solution of argyrol, 10 to 15 per cent., meets the indications in nearly all instances. Many cases of foreign body in the conjunctival sac or on the cornea are followed by a considerable degree of congestion, irritation and pain, and I have observed that it is a common practice to prescribe indiscriminately, cocaine or atropine for relief. Cocaine, when frequently applied, seriously disturbs the cornea, and atropine is ofttimes dangerous on account of its tendency to increase ocular tension, and should only and especially be prescribed in elderly persons with a full knowledge of its indications in each case. An abrasion of the cornea is indicated by a break in the smooth glassy surface of the epithelium, and is

always accompanied by such symptoms as sensitiveness to light, congestion, lachrymation with a feeling as if a foreign body were in the eye.

A *slight abrasion* which does not become infected may heal in a few hours in a healthy person, with the use of cold applications, antiseptics, atropine, and shielding the eye from light, but if any condition exists unfavorable to the healing process—such as the exhaustion of a long illness, old age, the lowered vitality of the nursing mother, the existence of an infective discharge from the conjunctiva or lachrymal apparatus, a suppurative inflammation of the cornea may result and end in serious damage to the eye. These cases demand in their treatment more than the usual local remedies. Heat must be substituted for the cold applications, the pain which is very considerable must be controlled, sleep must be secured, alteratives and tonics are ofttimes demanded. The problem of proper nutrition becomes an important one. With all these conditions met the prognosis of abrasions of the cornea, both as to early recovery and the results as to vision, is favorable, unless they are deep enough to involve Descemet's membrane, and are situated directly over the pupil, when the resulting scar may seriously interfere with vision.

An *incised wound of the cornea* presents many of the symptoms of an ordinary abrasion. Of course, if there is a perforation, the tension of the eye will be markedly diminished, and if the wound is seen shortly after an injury the iris rests against the cornea, the anterior chamber being abolished. Such an uncomplicated wound heals readily, ofttimes in a day or two, with cold applications in the beginning, atropine, strict cleanliness and a protective dressing, but a blow of sufficient force to pierce the cornea will often involve the iris, ciliary body or lens, which changes the whole aspect of the injury. The iris may be prolapsed and there will be hemorrhage in the anterior chamber, iritis, irido-cyclitis, or a traumatic cataract may develop.

The lips of such a wound should be adjusted as accurately as possible, and in case the wound has a tendency to gap a protective flap of the conjunctiva may be formed over the cornea, or some very fine sutures may be taken in the wound. A dressing and bandage exerting a light gentle pressure should be applied—one that will prevent the patient from getting a finger underneath the dressing with the result of infecting a wound which would otherwise have remained clean. If the iris is wounded or prolapsed and caught in the corneal wound it should be disentangled or snipped off so as to avoid an adhesion to the cornea. In the healing of corneal wounds it is to be expected that there will be considerable scarring, and if the wound is a central one,

the best possible result means considerable defect in vision. In such an injury as is here discussed it is well to have the patient in bed for a few days of absolute rest. The pain should be controlled by atropine, heat and opiates if necessary.

It should be remembered that wounds of the cornea often extend over and involve the ciliary region—the so-called "dangerous zone" of the eye, extending ⅛ inch backward and around the cornea, and that wounds of the ciliary body are always of the greatest consequence on account of the fact that such injuries are so liable to be followed by sympathetic inflammation, one of the most destructive of all diseases of the eye. This is an inflammation of the uveal tract occurring in two forms, the serous and the plastic, the plastic being the form which is the most destructive. The nature and method of extension of sympathetic inflammation are still an unsettled question in ophthalmology, although the dire result of the disease is a familiar chapter to every oculist. It is especially common following *Perforating wounds with the lodgment of a foreign body in the eye,* and it is for this reason that such injuries are a serious matter in all instances. In dealing with perforating wounds it is of course necessary—in order to make a proper diagnosis, prognosis and treatment—to positively determine the presence or absence of a foreign body within the eye, and the nature of the foreign body if possible. It is unwise to wait until the hemorrhage has been absorbed or the inflammation and swelling have subsided. The history of the accident will often clear up the question of whether there is a foreign body in the eye. The extent and character of the external wounds may have an important bearing. A wound of the cornea and iris or lens, with the history of the eye having been struck by a small flying missile, is almost certainly an indication that a foreign body has entered the eye and has been retained. A perforation of the sclera with intra-ocular hemorrhage and a similar history, generally means that the foreign body has entered the eye and remained there. Because of the congestion and edema of the overlying conjunctiva small perforating wounds of the sclera may be difficult to locate. Where there is little or no hemorrhage in the eye the foreign body may be seen in the anterior chamber, on the iris or in the lens, by the use of oblique illumination or with the ophthalmoscope, but hemorrhage is such a frequent accompaniment that ophthalmoscopic examination of a recent wound is seldom satisfactory.

Since the introduction of the Roentgen ray the difficulties in diagnosis have been greatly diminished. The presence of a foreign body may be determined, and by the special apparatus for locating

foreign bodies in the eye devised by McKenzie, Davidson, Sweet and others, their removal has been simplified. Since the introduction of the magnet for this purpose by McKeon in 1874, the removal of chips of iron and steel has been greatly facilitated. The Sideroscope or magnetic needle is also a valuable means of diagnosis. If the foreign body is sensitive to the magnet, this instrument may be successfully used in a large proportion of cases. The chip of iron or steel is attracted by the magnet, and the movement of the metal causes pain in recent injuries which is frequently referred by the patient to the location of the metal. This complaint of pain is valuable in establishing the question of whether there is a magnetisable foreign body in the eye. A negative result, however, does not positively indicate the absence of iron or steel because the foreign body may be deeply imbedded in the tissues or surrounded by inflammatory exudate if the injury is of a few days' standing. When we have once satisfied ourselves that there is a foreign body in the eye our duty is plainly to remove it if it is possible to do so without serious damage. If the foreign body is magnetisable and the case comes early an attempt at removal with the magnet should be made through the original wound, enlarged if necessary. If the foreign body lies in the anterior chamber or on the iris, as often occurs, it may be picked out with forceps through the corneal wound or through an incision made directly over it. Many such injuries involve wounds of the iris or the lens, or both, and the foreign body may be found entangled in these tissues. In such a case it is not sufficient to remove merely the offending substance; a traumatic iritis with inflammatory exudate which threatens to destroy the pupil soon develops, and it is generally necessary to at least do an iridectomy, or the lens which has been injured, swells, clouds up, the intra-ocular pressure increases, and we have a traumatic cataract to deal with. An eye containing a foreign body in the vitreous is always in imminent danger of destruction as well as a menace to the other eye through sympathetic inflammation, so that through the means above mentioned most foreign bodies should be removed, and where this is done the majority of cases result in saving some vision or at least a comparatively safe globe.

Some of the most troublesome cases of foreign body in the eye, in my experience, are those in which the foreign body is non-magnetisable—copper, stone, glass and oxidized iron or iron rust. These should be as accurately located as possible, and removal should be attempted by an incision if necessary. This will often result in failure and the eye will go blind in spite of every effort. Such an eye is better gotten rid of at once, unless the irritation is subsiding and

the patient may be under the constant observation of a competent oculist, for the reason that convalescence is prolonged, the eye may be very painful, and sympathetic inflammation so frequently follows such cases even after the lapse of many years. One can never tell when such a case is safe.

Uncomplicated accidental wounds of the sclera are rare. The cornea, iris, ciliary body, and choroid are generally involved in the injury, and there is considerable hemorrhage and loss of vitreous in many cases. The nutrition of the eye is greatly disturbed in such wounds, and the eye is more apt to be lost by infection than in wounds of the cornea. In addition to the general symptoms common to most injuries we have the greatly decreased ocular tension and possibly a bead of vitreous presenting in the wound. Scleral wounds heal slowly and in order to facilitate healing sometimes require to be repaired by nicely placed sutures of very fine material. A scleral suture should only include the outer layers of the membrane, and the conjunctiva over the wound should be carefully united. As in all perforating wounds of the eye the strictest asepsis and anti-sepsis should be observed. It should always be borne in mind that the lachrymal apparatus is frequently the seat of chronic inflammatory disease of an infective nature, and this should be dealt with according to the necessities of the case. Scleral wounds, unless they are small, clean and uncomplicated, present a bad prognosis, and many of them are so severe as to mean the immediate and permanent loss of vision with the collapse of the eye which often demands immediate enucleation.

Injuries to the conjunctiva alone, aside from burns, etc., are of comparatively little importance as a rule, and are generally in the form of contusions with ecchymosis, scratches and lacerations, the latter often followed by swelling and edema. Conjunctival wounds are very liable to give rise to a mucopurulent discharge, but, treated on general surgical principles, heal readily enough, and without serious consequences. Sutures are not always required, after the parts are cleaned and adjusted, and when the eye is closed they come nicely together without sutures. A wound of the conjunctiva calls for an occlusive dressing. The swelling and discomfort are best controlled by the application of cold. In the light of the newer bacteriology of the conjunctival sac, it is well to use an efficient antiseptic in all wounds of the conjunctiva, such as 20 per cent. argyrol solution or 5 per cent. aristol in oil.

Injuries of the lids of every variety and description are frequently met with—incised, punctured, lacerated and contused, and on account of the loose and yielding character of the tissue, the consequent dis-

coloration, swelling and edema are greater than in a similar wound in other parts. Therefore the seriousness of a wound may not always be judged by these conditions, as it often depends upon the involvement of the bony walls of the orbit and other complications. The exact character of a wound in the skin is of importance with reference to the permanency of the injury. Horizontal wounds of the skin of the lids, that is those that run parallel to the line of the fibres of the orbicularis muscle, are not gaping wounds and therefore healing takes place more readily and with less contraction and deformity from scarring than in those in which the cut runs at right angles to the line of fibers of this muscle. Wounds which involve the entire thickness of the lid rarely heal without more or less deformity and permanent disturbance of the normal relations, giving rise to epiphora, ectropion, entropion, trichiasis, and other consequences of the abnormal condition, and so incised and lacerated wounds of the lids which of themselves would be considered simple matters, may be rendered of great consequence by reason of their remote effects. A deformed lid or one which through cicatricial contraction fails properly to cover and protect the eye, may result in destructive inflammation and ulceration of the cornea and loss of vision. Wounds of the lids may involve the skin only or the muscular tissue and tarsus as well. Their treatment does not differ from that of similar wounds elsewhere, except that greater care must be taken if one would avoid annoying scars with their evil results in this location, to secure primary healing by the strictest surgical cleanliness and the most accurate apposition of the edges of the cut. Where infection does not take place, healing of wounds of the eyelids is rapid and satisfactory as a rule.

Contusions of the lids with ecchymosis, the so-called black eye, are very common. The ecchymosis may be diffused or appear in the form of a hematoma. It would be a loss of time to discuss this subject here, but it may be well to remark that where the ecchymosis appears at once it is generally due to a simple contusion, whereas if it is late in development, several hours perhaps after the injury, it may be due to more serious conditions—such as fracture at the base of the skull or rupture of the orbital vessels, and these possibilities should be taken into consideration.

Burns of the conjunctiva, cornea and lid are among the most frequent accidents to the eye, resulting from hot metal, steam and hot water, cigar ashes and ignited match heads, exploding gun powder, and by caustics in the shape of strong acids and alkalies, most frequently lime. Caustic potash and sulphuric acid are often the cause of the most destructive injuries of the eye, those from strong caustic

alkalies being particularly serious. So far as the destructive process is concerned, there is no material difference between the action of heat and that of caustics except that as a rule the action of caustics is in most instances apt to produce the greatest amount of destruction. In these injuries the conjunctiva is inflamed and swollen, is destroyed at the point of contact with the injurious material, the burned areas appear as grayish white, plaque-like patches, and the usual symptoms of violent irritation, with muco-purulent discharge, are present. The conjunctiva of the upper lid is seldom much involved in burns excepting where the eye has been filled with molten metal or some such accident. Extensive burns of the conjunctiva are always of the greatest seriousness on account of the bad result which frequently follows in the shape of deformities of this membrane and the lids, due to the formation of scar tissue and subsequent contraction of the same. There may result adhesion between the two lids, adhesion between the conjunctiva of the lid and eyeball, turning outwards (ectropion), or inwards (entropion), of the lower lids and thus disturbing the lachrymal apparatus and doing away with the protective functions of the lids, and in case of entropion giving rise to a constant source of irritation and danger to the cornea, and in ectropion especially producing great disfigurement. Burns of the eye may be trifling in themselves but complicated by extensive burns of the skin of the lids, and the face may in the process of healing give rise to scar tissue of such nature and extent as to disturb the normal relations of the lids and thus prove a great danger to the eye.

In burns of the conjunctiva of any extent the cornea is also involved as a rule, although many burns of the cornea alone are met with from small flying hot materials. A burn of the cornea alone is apt to be a central burn because the eye is ever on the alert to protect itself, and when the effort at closure of the eye is made and the material reaches the cornea the injury is generally inflicted upon the interpalpebral portion.

Burns of the cornea produce many effects similar to those of the conjunctiva. If only the epithelial layer is involved the cornea will have lost its luster and will look steamy or perhaps covered by a thin, light gray film; under proper care the epithelium is soon reproduced and there may be no permanent effect. If, however, the deeper layers of the tissue are affected, a thicker white film is present, the surface is dry and a scar of more or less density will result causing serious damage to vision; or the deep burn may become infected and perforation occur with the destructive consequences of such an event, so that

as regards the prognosis as to vision of injuries by heat or caustics, it may be said that this depends greatly upon the seriousness, and to what extent the cornea is involved, the depth of the burn, and consequently the size and density of the resulting scar. One can not always tell about these things at the outset and so the prognosis must often be in doubt. And again, the ultimate results of a burn upon the functions of the eye as indicated above, will depend to a great extent upon the amount and character of deformity of the lids, adhesion and contractions arising from the scars.

As to treatment. It is perhaps needless to say that the first thing to do for a burn of the eye is the complete removal of the substance that produced the injury, and this may be done by the use of pledgets of cotton, forceps, or by thorough flushing by cold water or such solutions as can be used to neutralize the effect of the irritating substance if the case is seen early. Burns by the caustic alkalies may be treated by flushing with a weak solution of vinegar or by milk, lime burns are best treated by washing out the eye with a thin bland oil and instilling a strong solution of sugar; iced applications, atropine or holocain and a bland ointment at frequent intervals are indicated; every effort should be made to prevent adhesion between the lids and the globe, and such adhesions should be repeatedly and persistently broken up. Many devices have been suggested for this purpose and almost as many failures recorded. In extensive burns it is next to impossible to prevent disastrous adhesions with all the train of evil consequences, and such cases are calculated to tax and often defeat the best efforts at relief of the most expert oculist. Consideration of these will carry us too far into the realm of special ophthalmology for the purpose of this paper.

At this season of the year the subject of burns and injuries to the eye from gun powder is a timely one; the injuries from powder are a combination of the effects of a burn and a foreign body and should be treated as such; the powder often penetrates the eye and lies in the anterior chamber or deeper, and often defies removal. As the powder is sterile and as considerable damage is bound to result from attempts at removal, it is often best allowed to remain. Powder grains imbedded in the cornea and conjunctiva should be removed by a spud or forceps or touched and disintegrated by the fine point of a galvanocautery. A local anesthetic will always be necessary, and in children at least, if the injuries are severe, a general anesthetic may be indicated. Hydrogen peroxid applied with a cotton wound applicator for its mechanical effect, aids in the removal of powder grains, and papoid,

for its solvent action, has been used with advantage, and is recommended in these cases.

Discussion.

DR. P. H. McGOVERN, of Milwaukee: The few things that I have to say will come from the point of view of the general practitioner—the man who very often has to handle the injured case in the beginning. The paper itself is so exhaustive, and covers the large field so extensively, that it leaves scarcely room for anything on the part of one discussing the paper, other than emphasizing certain things that may be of importance to the general practitioner.

From my limited experience in injuries of the eye, there is one thing that always impressed me above everything else in the management of the case, and that was an accurate conception of the exact condition that I was dealing with. The thing that first comes to my mind is this: am I to consider that this is a trivial matter, which I, as a surgeon, applying ordinary surgical knowledge and skill, ought to be able to handle, or will it drift into, or is it at present a condition requiring more exact knowledge? When I first visit a patient suffering from an injury to the eye, I attempt to come, if not to an actual diagnosis of the case, yet to a conclusion as to how the injury will turn out. I should say in a general way, that a perforating injury, particularly in the dangerous zone, that is from the margin of the cornea outward for at least a quarter to a third of an inch, is always bound to be serious, and I think such a case ought to be taken to a specialist at once. The perforation need not extend very far to affect the iris, the ciliary body, or perhaps the lens, and produce traumatic cataract. Now, if this case gets into the hands of the specialist and he applies the best present knowledge of the specialist, he may be able to save the eye; whereas if the thing drifts on in the hands of the general practitioner who is treating it expectantly, and hoping that something good will come of the case, it may be too late when it comes into the hands of the specialist to do anything with it.

I have had two cases in my experience illustrating this point. One was that of a farmer on whose cornea immediately over the pupil a small piece of barley beard became lodged. His wife acted as the administering surgeon and she worked rather vigorously on the cornea; the thing would not come out; or if it did come out she decided that she would bore in until she was sure; and in fact she did bore into the connective tissue so deeply that I recognized that we would have a large opacity there and an infection. So I directed them to run into Milwaukee—that an eye was worth the run—and see a specialist. Examination showed that there was an opacity so large that an iridectomy was not advisable and was not done, and the man has lost the sight of that eye. A medical practitioner might do nearly the same thing that this woman did, by using an infected lance or spud, and thus destroy more corneal tissue than necessary—perhaps digging down even to connective tissue and getting a resulting proliferating infection which might destroy part of the eye.

Another case was that of a boy 10 or 12 years old who was almost blind. He could just distinguish light from darkness, and the history of the case showed that when he was about two years old he received a kick from a horse

squarely in the eye, causing a crushing fracture in the region of the ethmoid bone and driving it back on the optic nerve. The pressure was not sufficient in the beginning to cause blindness. The case was under the care of a country physician, and after awhile callus developed; the bone began to make injurious pressure on the nerve; optic atrophy set in, and permanent blindness resulted. The boy came to me and I said, "Go to Milwaukee, and if you do not get a reasonable amount of assurance of improvement go to Chicago." Here was a young boy beginning life. The sight of both eyes meant all and everything to him. But he got absolutely no comfort either in Milwaukee or Chicago, and he is now simply a burden upon his family and a burden to himself, the sight of both eyes being gone.

DR. SEAMAN: I have not very much to add. I had hoped that I had covered this field in a way that would make it interesting to the men doing general medicine and surgery. I made the best effort possible to cut out everything of a purely ophthalmological nature, because I have observed that when such a subject is under discussion the men who are not particularly interested in ophthalmology weary of it very quickly, and I had hoped that this paper would give rise to some discussion, some relation of experiences with these cases of injury. I assure you, gentlemen, that there are a large number of cases of injury to the eye which in my judgment are not given the chance that they should be given, for the reason that sufficient time is not taken in the beginning to arrive at an exact and satisfactory diagnosis.

I could relate a number of cases from experience illustrating the point that what seems to be a simple injury, an abrasion of the cornea, oftentimes through bungling handling at first, generally on the part of some fellow workman, has become infected more extensively than the original injury from a small foreign body would account for, and that evil results follow from this condition in many instances.

I could cite you cases where the external appearance was that of only a small punctured wound of the eyelid—one case that I have in mind—a small punctured wound of the lower lid, made by a sharp-pointed curtain pole—the case of a child which I saw later on with a physician in this city. There was a small punctured wound, some ecchymosis, and that was all that seemed to be the trouble. But as a matter of fact the orbit had been punctured, the cranial cavity had been punctured and meningitis resulted, and the child died from what seemed at the time to be a very simple matter. So that in wounds of this kind it is well to determine at first whether or not the injury has been any deeper than it seemed to be on the surface.

I recall another case where there was only some ecchymosis, where there were very few symptoms to point to a severe injury, but which proved to be a rupture of the cavernous sinus, and an aneurism and loss of the eye resulted.

I think that this question of injuries to the eye is an exceedingly important one; it is not sufficiently dwelt upon in text-books on the eye. They have 20 or 30 pages, sometimes, speculating upon the theories concerning sympathetic ophthalmitis, and two or four pages devoted to the special injuries of the eye. It is a strange fact that the first special book on the injuries to the eye was published about 1850 in England; that since that time there have been only three published; that there has not been a book written on that subject by any man in the United States since 1874, when the small manual of

Arlt was translated by Turnbull of Philadelphia. So that notwithstanding the great importance of this subject, it seems to me that it has not as yet received the attention that it deserves.

TUBERCULOSIS SANATORIA AND TREATMENT.*

BY C. A. HARPER, M. D.
MADISON.

Sanatoria for consumptives, under the present interpretation of the term, are institutions for the open air treatment for cases of tuberculosis presumably curable under medical aid through hygienic and sanitary measures.

Generally speaking, these sanatoria are not intended for the treatment of tubercular cases that are in the advanced stages of the disease in which the chances for recovery are very questionable. Tubercular sanatoria should be distinctive in themselves, free from any complicated association with other institutions. If they are a branch of a large hospital or penal institution, the tubercular division should have a separate supervision peculiarly necessary in the treatment and handling of this disease.

It has been proven that tuberculosis can be cured in most unlikely climates, and many things point to the conclusion that fresh air and proper medical supervision rather than a fine climate are needed for success. At the present writing we have something over one hundred and fifty well established sanatoria for the treatment of tuberculosis in the United States. Some of them are located with special reference to climatic conditions, others are located with special reference to accessibility and ease of maintenance. In the location of future institutions the climatological factors will be less influential and the accessibility will carry greater weight in the determination of any particular site.

In the words of Dr. Leon Pettit—"We are nowadays convinced that there is no climate, however favored, which alone can cure consumption."

Sanatoria sites should possess certain common factors which we are justified as regarding essential: Pure air, free from dust and smoke and well separated from a dense population, a fresh and bracing

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*Read before the 60th Annual Meeting of the State Medical Society of Wisconsin, June 28, 1906.

atmosphere, protected against the stormy winds, sufficient fine weather or artificial shelter to render the outdoor life attractive, and a gravelly well drained soil. Possessing these conditions, with suitable arrangements, we are in a position to treat consumption with success.

Of greater importance than climate, therefore, is the use that we make of the climate we already possess. Consumptives have been cured in all climates, on the seashore as well as at the Alpine health resorts.

State sanatoria have definite functions to fulfill and their establishment as well as their management should be particularly directed to successfully carry out the demands made upon them. A State sanatorium, of all sanatoria, must have the care and treatment of consumptives suffering in the incipient stage. This is made essential as the result of the relation of the state institution to the citizens of her commonwealth. An institution of this character should do the greatest good to the greatest number of her citizens irrespective of financial compensation or social position, and this, we believe, can only be done by closely adhering to the admission of patients suffering from tuberculosis in the incipient stage. The State institution is not only for the cure and relief of its patients, but it is largely educational in its functions, and, indeed, the educational side of a State Tuberculosis Sanatorium is undoubtedly of paramount importance. The easy accessibility to the center of population will bring this educational feature into special prominence.

Our institution now under the process of construction will accommodate at any one time one hundred patients. The period of treatment usually extended is about six months' duration. Hence, assuming that we have 10,000 tubercular individuals in the state, only 1/100th of this number can receive benefit at any particular time; or in any one year, 1/50th of the total sufferers. In order, therefore, to reach the great mass of consumptives in the state, it is essential that this institution send out men and women graduates who have learned not only how to take care of themselves in a hygienic and scientific manner, but who will be taught at the same time the art of imparting their knowledge to others with whom they may come in contact. Every recovered patient of this institution is, therefore, a factor of good in his locality and his training should be such while in the institution as to make him ever ready and willing to help those who are afflicted and with whom he may be associated.

From fifty to seventy-five per cent. of the patients, when proper selection is made, should return to their homes cured or on the road

to recovery, useful citizens, and living examples of what may be done with the tubercular patients when properly treated in the early stages and taught the methods of proper living.

"Sanatoria broadly may be divided into two classes,—those which aim at the restoration of patients, and those which are now designed on humanitarian principles to care for the hopeless cases and to prevent them from infecting others."

The statistics from this second class of institutions would show such a small percentage of recoveries that if a state institution were used for this purpose, the effect upon our citizens would be demoralizing.

Consumptive hospitals were originally regarded as institutions for advanced cases and are now much needed to prevent such cases from infecting those about them. This function we would generally delegate to the private sanatoria or to county and municipal consumptive asylums. The success of the present crusade against tuberculosis which is now inaugurated all over the civilized world, will, in a great measure, depend upon the manner in which the advanced cases of tuberculosis are handled, and therefore the establishment of hospitals for the treatment and care of individuals suffering from the later stages of consumption easily stands first under the laws of prevention.

The contagiousness of tuberculosis makes it absolutely essential that the sources of contagion be controlled to the fullest extent. If the tubercular material given off by all tubercular subjects could be sterilized immediately when given off, no new cases of consumption would arise, and when the present tubercular population would have died, tuberculosis would be extinct. Theoretically, this is possible. Practically, however, it is certainly impossible. Many sufferers from tuberculosis need simply be told what to do and they will properly care for themselves. Others have the disposition to do what is right, but lack the knowledge, means and intelligence. Some may have the means and intelligence, but are sorely wanting in the disposition; others may lack all three, intelligence, means and disposition to do that which is right to themselves and right to those with whom they may associate.

In large cities, separate hospitals may be established; in smaller communities a branch of some other regular institution may be definitely outlined for the proper care of tubercular patients in the later stages of the disease.

The statistics from these institutions would not and could not of necessity make a very favorable showing because the cases are prac-

tically hopeless when first coming under their care and observation. These factors would be understood by the public and would have no demoralizing effect upon the present methods of cure and treatment of tuberculosis when begun in the incipient stage.

These institutions could undoubtedly be made a paying proposition and most certainly should receive the support of every physician in the state who has the welfare of the public at heart. The same general principles should be applied to consumptive hospitals for advanced cases as are applied in sanatoria for the incipient cases. At no time should any effort be neglected to bring about recovery in what is apparently a most hopeless case. The advanced cases should be prevented from spreading contagion, and new cases from advancing to that stage where a large amount of the contagious matter is thrown off.

The health authorities of London realized the importance of these measures fifty years ago and special institutions were established for taking care of the advanced cases of tuberculosis. As a result of these precautions, the death rate from consumption in the metropolis of the world has been reduced one-half. The mortality formerly was four per 1,000, to-day the statistics show that only two per 1,000 die from tuberculosis.

Paris, on the other hand, confronting the same conditions as London, failed to grasp the seriousness of the situation and hence the death rate remains the same, estimated at 4 per 1,000 every year. The decrease in the deaths from tuberculosis is a real one and not in any respect merely apparent. That the establishment of sanatoria on the part of the state is an economical factor can no longer be doubted. That which is good for an individual and a corporation should be good for the government. An individual rescued from what was formerly considered a fatal disease is not only prevented from being a burden to society, but is made of value to his family and the state.

The life insurance companies of Germany have proven many times that it is more profitable for them to erect sanatoria for the care and treatment of their tubercular policy holders, than it is to have them neglected and thereby necessitating paying the death losses. The proper care and treatment of tuberculous individuals decreases the spread of consumption in a geometrical ratio on the same basis that the neglect of a dying consumptive would tend to increase the spread of the disease.

Our state has at least done a part of its duty in the steps it has taken. It remains now for the individual and the smaller divisions of state, counties and municipalities, to take up the work along similar

lines and aid in the annihilation of consumption, by establishing institutions to give the afflicted the proper care.

A simple tent colony will be able to accomplish material results at a very small per capita cost. They could be feeders as it were of the state institution. Afflicted individuals that are past the incipient stage could be here treated and tested as to their powers of recuperation. If, after four or eight weeks' treatment, the symptoms begin to lessen and a general improvement is manifested, these cases could gain admission to the State Institution for further care and treatment. The tent colonies at Boston for the past two summers verify this statement.

The establishment of state and municipal institutions of this character will not in any manner lessen the responsibility of the physicians in the crusade against tuberculosis. If anything, it makes the responsibility more acute and neglect of duty more censurable. We have now a well defined scientific basis of treatment, our duties are constantly before us, and the public is in hearty accord with all suggestions offered. Our pathway in every respect offers less resistance, and with the extra knowledge at our command, we should invariably overcome any imaginary obstacles.

Every physician will almost constantly have under his supervision tubercular subjects who for a long time to come cannot gain admission to any sanatorium. Hence, this one fact should be of paramount importance and classified along well defined lines. A tent, porch or shack can be connected with any home in the state, and easily so outside of our congested localities. These can be made the individual sanatoria to meet conditions. The places should be personally supervised by the physicians specially interested, and the conditions worked out for a large tubercular sanatorium site, and treatment should be in every case carefully considered.

Tuberculosis is essentially a house disease. Probably not more than one per cent of all the consumptive cases in the state are contracted outside of the buildings. Hence, the house, broadly speaking, should be eliminated almost entirely as a factor in the treatment of tubercular patients. It has been shown that bright sunlight in an ordinarily dry atmosphere will destroy the germs of tuberculosis in three days; in well diffused light, in a similar atmosphere, five days will ordinarily produce a destruction, in darkened rooms and a damp atmosphere the tubercular germ may live for an indefinite period. Hence, sunlight is Nature's great agent in destroying this infectious germ. We may batter down the windows of a well selected room be-

lieving that we have accomplished the desired end in locating our patient, and yet our results will not be as satisfactory as those obtained from a protected porch, from a hastily constructed shack or from a well located tent. This we should first learn, and secondly we should impart this knowledge to our patients, our patients' family and our patients' friends. The cold of winter should not deter us from insisting upon the essential features in the establishment of a suitable place for the treatment of our individual cases unless there is some special contraindicated condition. The dying consumptive, greatly enfeebled, should be made an exception to the general rule in this respect. Comfort should always be obtained in these cases while interfering with the general plan as little as possible. Imaginary obstacles and conditions, the solicitude of ignorant people as to the dangers of catching cold, etc., should not be tolerated unless there is well defined basis for their pleas. Why cannot the individual therefore be treated at his home as satisfactorily as in a state or well regulated private sanatorium? Accept that the local arrangements for the housing of the individual are satisfactory. There are many factors that will come in that will make home treatment less successful than the treatment in the larger institution.

The question of medical care and medical discipline is of extreme importance in addition to all the other essential arrangements. An individual suffering from tuberculosis needs to be more carefully watched and more carefully advised then any other invalid in order to get curative results. The fight for life on the part of a consumptive is at its best a close race, and little things may come up to lessen the vitality and individual resisting power that will turn the tide against success. Fresh air, good food and rest, appear easy of application and yet are often difficult to distribute in the proper proportions. They cannot be prescribed promiscuously any more than a prescription for dangerous drugs can be given indiscriminately. In the larger institutions where the individuals are constantly under the supervision of medical men and trained nurses, every feature pertaining to the lines of treatment may be definitely recorded, and factors working for or against each case will receive due consideration.

Throughout the sanatoria of the country it has been established as a general rule that every patient upon admission to one of these institutions shall be put to bed for a period of four to eight weeks and absolute rest in bed insisted upon, the time depending upon temperature, accelleration of pulse and general physical conditions. The element of rest is usually maintained in incipient cases until the tem-

perature throughout the day is normal, the nervous irritability overcome, and indication of gain in weight and strength are manifested. When these symptoms are obtained, then the patient is granted permission to be about the institution and take very limited walks or exercise. The food in each institution is carefully studied and specially prepared. The proportion of proteids, albuminoids and starches is definitely measured and the quantity of each must be selected to give the best results in every individual case.

The fresh air treatment in the large institutions can be more satisfactorily carried out. In other words, each individual is put in competition with other individuals in the fight for life, and competition here as well as elsewhere makes discipline more easy and lends encouragement to the great general cause. These conditions are practically impossible in the individual's home. The individual at home feels more of an outcast in comparison with his family and friends. His business responsibility and his social duties rest more heavily upon him and from time to time he will break the prescribed rules of rest in order to do some manner of work or enjoy some social evening. Especially is this true with individuals suffering in the incipient stage of the disease. This disease, attacking people usually in early adult life, takes them at a time when they are starting out for themselves and entering into new business industries. It is hard to take men and women who are incapacitated only to a slight degree, from active business pursuits and make them almost as helpless as babes. We believe this factor really more than any other to be the deterring factor in the successful home treatment of incipient cases. Rest in the proper amount and proper period of time, freedom from business responsibilities and family cares, is the most difficult to overcome and the most detrimental to the patient if presistently disobeyed. Hence, the almost absolute necessity of making our state institution a place for our individuals suffering from incipient consumption and the necessity of sending incipient cases to institutions, state or private, in order to properly apply the methods of treatment and thereby obtain the results expected and demanded.

We need not elaborate upon the peculiar characteristics of this disease and the imaginary impressions made upon its victims. Every physician has probably observed a patient in the last throes of death, planning for some business undertaking or social engagement for the morrow. In sanatoria you have the individual alone to contend with, while in the home treatment you have not only the individual but his family and many of his unkind friends. The preparation of the food

in many instances cannot be satisfactorily brought about, and the cold sponge bath each morning, which is so essential and beneficial in sanatorium treatment, is frequently neglected at home.

The anti-vaccinationist is cruel to science; the anti-antitoxinist is criminally negligent; the anti-enthusiast to sanatorium treatment when it can be obtained for tubercular patients in the incipient stage of the disease is a traitor in the crusade against the "Great White Plague."

It is certainly essential that nearly all of us should reorganize our ideas to the importance of these measures. Our hopes should be renewed and our ears retrained to detect this disease in the incipient stage. We certainly owe this to our profession. Surgery in recent years is said to have outstripped medicine in the good that is being done. We undoubtedly must accept this as a truth. The medical profession, however, have a chance to regain their laurels and put surgery in the back-ground. The discoveries made along the lines of bacteriology belong to both branches of the profession. The surgeon has been first in the application of its principles. Need we state that the medical man has been negligent as a result of his diversified work in applying the rules at his command? The neglect in this respect criticizes itself. We need not comment upon our errors or upon our indifference. In future years they will not be bright pages in history.

Hippocrates, the celebrated physician of antiquity (460 to 477 B. C.) described pulmonary tuberculosis as the disease which is "the most difficult to treat and which proves fatal to the greatest number;" Insocrates, in the fifth century, as a disease "transmissible through contagion." In the middle ages Montano declared consumption to be "one of the most dangerously contagious and most readily contracted, of all diseases."

In Naples, a royal decree, September 20, 1782, ordered the isolation of consumptives and the disinfection of their apartments by means best known at that time. For violation of this law an ordinary individual was sent three years to the galleys. The physician who failed to notify the authorities of the existence of tuberculosis was fined 300 ducats for his first offense and on his second offense he was banished from the country for twelve years. Spain and Portugal in 1750 required the parents or nearest relatives of consumptives to notify the proper authorities of its existence. This was done for the purpose of making sure of the disinfection of the premises after death of the patients. Hence, more than 2500 years ago the lights were lit by celebrated physicians, and active governments showed the way to begin the

extermination of the most fatal of all diseases. These lights have been allowed to smoulder and a great many physicians are still blind to their existence. Finally nature grew angry at the extreme indifference, and men destined to be great were afflicted and made greater by being victims of its ravages. In them the warrior spirit was aroused that made them pioneers in the sanatorium treatment of the great question now before us.

The mountains in the East and the West were utilized as a battle ground and from these centers the plateaus and the prairies have taken up the tocsin of alarm and the people are rising in their might against this destructive enemy. The indifference of many of us can no longer be tolerated, the government of our country is being put to a test by popular sentiment based upon reasonable facts. The crusade has begun, it cannot be checked until the greatest foe of mankind is defeated at every point.

Discussion.

DR. F. F. BOWMAN, Madison—At the meeting of the Society last year we were favored with a very able paper on the subject of tuberculosis, and again this year we are likewise favored. Medical journals have lost no opportunity to bring the subject before us, so that we cannot help feeling that the influence of the profession is crystalizing towards a definite action in regard to something that will bring results. Remember that Sherman said that the romance of war was beautiful, but that the real thing was hell; and I am somewhat inclined to believe that tuberculosis is something of the same order. The enormity of the problem is what appalls us. We have not only the human family to contend with, but we have cattle and other animals that enter into our daily use, as badly if not worse infected than ourselves.

Fundamentally divided by every heresy relative to medicine, as the American people are as a nation, and none too well united ourselves, we are now confronted with one of the greatest curses that civilization has been called upon to combat. We have known that since we have known of medicine, and practically have made no headway in grappling with the disease. The average American citizen is about as well broken to methods of healthful living as an untamed broncho, and quite as rebellious to restraint. Legislative measures to restrict the disease are bound to fail if they attempt to limit personal liberty. Hence, as the paper we have just heard well says, a campaign of education wisely inaugurated and conducted must play the most important part in aiding the medical profession in making respectable inroads upon this disease.

The state sanatorium will undoubtedly be of prime assistance in aiding the medical profession in methods of treatment, and the laity, by example; but a proper and practical method of treatment to be followed with that class of patients not susceptible to ideal conditions, is the most urgent feature of education along these lines. The general practitioner is constantly confronted with the problem of imitating ideal conditions and treat-

ment without materially altering the patient's environment; and it is education regarding this large and prolific source of infection that to my mind will strike as deep into the vitality of the disease as any one other factor. In the application of fundamental, simple and practicable principles to cases which of necessity must continue in their surroundings, is where the general body of practitioners' therapeutics is woefully lacking. Public education must fail if medical exponents are not prepared to deal competently with the situation.

I feel, however, that the medical profession, particularly the practitioners of internal medicine, as the doctor has suggested, are about to have their day; and the appendix will, we hope, adhere to the colon and quietly slough away and give the medical man an opportunity to occupy the lime-light for a time.

Eliminate many of the fads of public education and substitute more health and sanitation in the curriculum, well digested and not harsh laws to deal with the subject; and with the general medical profession prepared and united with a definite plan to direct the campaign against the disease, and I have no doubt that we will see results commensurate with the efforts that the medical profession is willing to put forth.

DR. C. H. STODDARD, Milwaukee—I would like to state that the tuberculosis movement in Milwaukee has received a considerable impetus, especially in the last few months. Two years ago the County Medical Society appointed a commission for the purpose of making a study of the question here, and to forward the educational movement as well as to promote the erection of sanatoria.

This spring the traveling exhibition of the American Association for the Study and Prevention of Tuberculosis was held in Milwaukee, and during the two weeks in which it was held it was attended by nearly 56,000 people, and we had lectures, etc. So that the movement, as I say, has received a very large impetus in this community.

The suggestion has been made that this movement be made general throughout the state, and for that purpose our committee, consisting largely of laymen in Milwaukee, has proposed the formation of a league, such as exists, I think, in eleven states in the union—a State League for the suppression of tuberculosis; and it has been suggested that this league be launched at the time of this meeting of the State Medical Society. The league in itself must necessarily or largely be composed of the laity, but nevertheless all such movements must be advised by medical men. I think in the nature of things that this State Medical Society should take this league under its protecting wing, and that each member of the society here present should in his own community make an effort towards the starting of the movement there in the formation of leagues locally, county leagues, etc., the getting together of speakers and such other efforts as shall further the work.

This league in the state contemplates the organization of a state exhibition to be sent around to the different cities and towns of the state, as well as a lecture bureau and a bureau for the promulgation of literature.

I think it would be well if some action were taken at this meeting toward this end.

DR. G. E. SEAMAN, Milwaukee—I think this is one of the most important subjects that the medical profession has to discuss—certainly at this meeting. It seems to me that every physician in the state ought to be intensely interested in the movement that is being made by the state to provide for tubercular cases at Wales; and every physician in the state ought to familiarize himself with what it is proposed to do at Wales, and what the plans are ,as soon as possible. In order to give the full benefit of this plan to as many as it is possible, every physician should place himself in correspondence with the State Board of Health and the special commission which was created by the legislature for the purpose of carrying this plan into effect.

Here in Milwaukee there has been during the past two years a great deal of interest following along the lines that have been laid down in other communities. It is true that in the east this movement for the suppression of tuberculosis has taken deeper root than it has here, not so much among the profession as among the people. It seems to be an easy matter in the east to induce men who have means to take an interest in the suppression of tuberculosis, in the way of providing funds for the erection of institutions, for the erection of laboratories for the study of tuberculosis in general, for the promotion of the enactment of sanitary building laws, and all that sort of thing. The only way that that movement gained in strength at all was through the medical profession. This is necessarily so. It is so in Wisconsin, and so it rests with the medical profession to acquaint the people with the facts relating to tuberculosis.

A great many of them still think that this is a fad on the part of the medical profession. Now, if there is anything that the medical profession has been intensely interested in in a hundred years—that is not a fad—it is this question of the proper handling of tuberculosis; and there is not a chapter in medicine that is as interesting or as hopeful as the chapter that relates to the prevention and now to the cure of tuberculosis.

I hope that this league will be formed, and that it will be formed under the sanction and with the approbation of the State Medical Society of Wisconsin, and that every physician in every community will interest himself to the extent at least of identifying himself with the league, and of inducing those among his patients and those of the laity who are so inclined, to do the same thing. I think it would be well to do this perhaps through the business organization of the society and do it in such a way as to make it most effective.*

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*In accordance with this suggestion, a committee of five, composed of Drs. C. A. Harper, C. H. Stoddard, G. E. Seaman, John M. Beffel and J. W. Coon, were appointed by the president to consider the question of the organization of a State Tuberculosis League.

SYMPTOMS AND DIAGNOSIS OF AORTIC ANEURISM.*

BY L. F. JERMAIN, M. D.,

MILWAUKEE.

The diagnosis of aneurism of the aorta, especially in the early stages, when questions of prognosis and treatment are vital, is not always an easy matter, and the most careful inquiry into the etiological factors, the clinical manifestations, and a painstaking physical examination, are of the utmost importance in arriving at a safe conclusion regarding the presence or absence of this affection.

Although aneurism of the aorta is not common, yet it is well to always bear in mind the possibility of its existence, and if this is done many obstinate cases of neuralgia, rheumatism, pleurisy, pleurodynia, colic and cough will be cleared up, and traced to their real cause.

The age at which aneurism most commonly develops is shown by statistics to be between the 30th and the 45th year. Thus, Crisp found that of 505 cases, 198 occurred between the ages of 30 and 40 years, and 129 between the ages of 40 and 55 years. Hare, in a collective investigation, found that of 674 cases, 152 occurred between the ages of 25 and 35 years, and 282 between the ages of 35 and 45 years. Death from ruptured aneurism has been reported at the age of 15 years.

Males are much oftener affected than females. Of 906 aneurisms of the aorta 86 per cent. occurred in males. This marked preponderance of the disease in the male sex is undoubtedly due to environment, the abuse of alcohol, and prolonged or sudden strain to the blood vessels through muscular exertion.

Clifford Allbutt called attention to the influence of strain upon the aorta and aortic valves leading either to disease of the valves themselves or to a loss of elasticity and dilatation of the aorta with diffuse granular exudation among the fibers of the middle coat, followed by pouching of the aorta or saccular aneurism.

The relationship of syphilis to aortic aneurism has been much discussed. A large number of competent observers, among them Babes, Heller, Straub, Gerhardt, and Hampeln, contend for the syphilitic nature of most anuerisms, while Leyden, Ziegler, Orth and others oppose this view.

Coats maintains that aneurism may be the result of "a local disturbance in the normal balance between the amount of lateral pressure inside the artery and the elastic resistance of the vascular walls."

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*Read before the Racine County Medical Society, Oct. 18, 1906.

The usual condition leading to the loss of elastic resistance is arterio-sclerosis, but as arterio-sclerosis develops as a rule much later in life than aneurism, the latter can not be considered as a result of the former, it is more probable that both are due to same or like causes, that is in one individual arterio-sclerosis results, and in another aneurism, the development of aneurism being determined by local disease or a weakened condition of the vessel wall, at the time when or just before arterio-sclerosis is developing.

The relative frequency of situation of aneurism follows the course of the vessel, the greatest number involving the ascending portion of the arch, next the transverse portion, then the descending portion, and finally the remainder of the aorta.

In Crisp's 234 cases of aneurism the aorta was involved 175 times, 74.5 per cent.; 58 per cent. of these were in the ascending arch, 28.7 per cent. were in the transverse arch, and 12.6 per cent. in the descending portion. Of Hare's cases, 570 involved the ascending portion of the arch, 104 the transverse portion, 110 the descending portion, and in 169 cases the situation was not accurately defined.

It is well known that aneurism may be entirely latent giving rise to no symptoms for a long time—often not until sudden rupture and hemorrhage occur.

Broadbent classified aneurisms into aneurisms of symptoms, arising from the transverse portion of the arch, and the aneurisms of physical signs, from the ascending arch. Pain, although entirely absent in some cases, is an important symptom of aneurism. It is more often present in deep seated aneurism, is paroxysmal or dull and boring in character. Pain beneath the sternum or in the region of the 4th, 5th or 6th thoracic vertebra, or in the course of the intercostal nerves, is extremely suggestive. Paroxysmal shooting pains in the arms sometimes occur.

The association of cough, dyspnea and intrathoracic pain should arouse suspicion of aneurism. Large doses of iodide of potash often relieves the pain. In three cases in which necropsy revealed aneurism, Eichhorst found that percussion of the anterior chest over a localized area provoked severe pain and paroxysms of coughing.

The most important and suggestive symptoms of aneurism, however, are those due to pressure upon structures contiguous to the arch of the aorta, and their correct interpretation often permits of a diagnosis long before physical signs develop. One of the most common of these is a peculiar brassy cough, metallic, clanging or ringing in character, a laryngeal cough due to pressure on the recurrent laryngeal nerve or nerves.

Alterations in the voice are frequent, the voice being husky, muffled and hoarse. In some cases complete aphonia results. Paroxysmal dyspnea associated with stridor, expiratory, inspiratory, or both, is a characteristic symptom.

Laryngoscopic examination reveals a cadaveric position of the cord corresponding to the recurrent laryngeal nerve that is paralyzed. Indeed, the cough and alterations in the voice with paroxysmal dyspnea alone often permit of a tentative diagnosis.

Unilateral pressure on the cilio-spinal branches of the sympathetic nerve, if moderate, gives rise to irritation of the vaso-dilator fibres, dilating the pupil and producing unilateral pallor of the face; should the pressure be sufficient to paralyze or destroy vaso-dilator fibres the pupil becomes contracted and the side of the face hyperemic and the seat of increased perspiration.

Narrowing of the palpebral fissure, enopthalmus or exophthalmus, are often associated with contraction of the pupil. Dysphagia due to pressure on the esophagus or to the pressure upon the vagus or its esophogeal branches, occurs, and may be associated with pressure upon the thoracic duct.

It is important to bear in mind the importance of first eliminating the presence of aneurism in esophageal stricture or obstruction before passing a bougie or stomach tube, as upon more than one occasion such an instrument was passed into the sac of the aneurism, causing immediate death.

Hemorrhage in thoracic aneurism may be profuse and rapidly fatal, or may persist for weeks or months, being simply a weeping through the sac which is exposed in the trachea or bronchi. Death from hemorrhage is more common in aneurisms of the descending portion of the arch. Even after repeated attacks of severe hemorrhage patients have been known to live for years.

PHYSICAL SIGNS.—Careful inspection of the chest with a good light is essential. Aneurisms of the ascending portion of the arch are often small and latent, but when they occur above the sinus of Valsalva along the convex border of the arch, they grow to be very large in size, pointing at the second or third interspace, eroding the ribs and sternum, and producing large external tumors.

Aneurisms of the transverse portion more commonly grow backward toward the spine, involving by pressure important structures, and thereby giving rise to a variety of symptoms.

Aneurisms of the descending arch grow to the left and backward, often eroding the vertebræ from the third to sixth dorsal, causing great pain, and sometimes cause compression of the spinal cord, and

thus a tumor may appear externally in the region of the scapula and be of enormous size.

Aneurismal pulsation is usually seen above the level of the third rib, and to the right of the sternum; it may be only a diffuse heaving impulse without external tumor. An external tumor is present in many cases, projecting through the sternum and right costal cartilages.

It is always of importance to ascertain if the pulsation corresponds with a general expansile movement of the tumor. Practically the impulse corresponds in time to the ventricular systole. By palpation a sense of vibration often accompanies the impulse. The sac may be soft and fluctuating. A diastolic shock of great intensity is often felt over the tumor and is one of the valuable signs of aneurism.

Lateral or antero-posterior deviations of the trachea and limitation of upward and downward movement during deglutition, occur.

Oliver's sign, "tracheal tugging," consists of a distinct tug on the trachea occurring with each systole of the heart; Cardarelli's sign is a lateral rather than a downward traction on the trachea. This sign, as well as Oliver's is best elicited by holding the head of the patient with the left hand, and with the thumb and index finger of the right hand grasping the cricoid cartilage, gently pressing it upward; if the sign is present a distinct tug will be felt. These signs are of much importance, being significant of aneurism of the transverse or descending arch of the aorta one that is in relation with the left bronchus and bifurcation of the trachea.

Recently Hall has described a tracheal diastolic shock which he regards as of importance.

Aneurisms are commonly so situated as to interfere with the circulation of blood in one arm or in the side of the neck or head, either by direct pressure or because the vessel springs from the sac itself. This will lead to differences in the time and force of the pulse in the carotid, subclavian, axillary, brachial or radial arteries, the one being retarded and weaker than the other. Osler considers obliteration of the normal pulse in the abdominal aorta a sign of much value in large saccular aneurism.

Congestion and swelling of the veins, cyanosis and edema due to obstructed venous circulation, unilateral clubbing of finger ends, and incurving of the nails, are all signs of value due to local circulatory disturbance. Percussion elicits an abnormal area of dullness depending upon the part of the aorta affected.

Aneurisms of the ascending arch give rise to dullness to the right of the sternum, those of the transverse portion give dullness in

the middle line, and those of the descending portion dullness in the left interscapular and scapular regions.

Aortic aneurisms, even if large, are not always attended with a murmur, which, if present is usually of a roaring quality and coincides with the expansion of the sac. In a small proportion of cases the recoil of the sac may be accompanied by a murmur. A ringing accentuated second sound, obviously due to the exaggerated recoil of the blood on the aortic valves, is usually present. Occasionally a systolic murmur may be heard in the trachea or even at the patient's mouth when open. Sansom advises placing into the mouth of the patient a small chest piece of a binaural stethoscope and closing his lips over it when a systolic aneurismal murmur, otherwise inaudible, may be conveyed loudly to the ear of the observer. The existence of an aneurism may sometimes be inferred from well marked alterations of pulmonary sounds occasioned by obstruction especially to the left bronchus. These consist in a notable impairment of the respiratory murmur, paroxysmal asthmatic attacks and a harsh paroxysmal cough.

Aneurism must be differentiated from mediastinal tumors. Aneurism is most common in males between the ages of 35 and 45 years, especially those engaged in laborious occupations, who have become infected with syphilis, and who have used alcohol to excess. Intra-thoracic growths are found equally frequent in both sexes, occurring at any age if secondary and before 35 if primary. A bulging expansile tumor is pathognomonic of aneurism.

A growth elsewhere or the development of a mass of enlarged glands above the clavicle indicates intra-thoracic growth. Edema of one side of the chest and corresponding arm is extremely suggestive of tumor.

In aneurism a systolic or double murmur, a palpable shock and a marked accentuation of the second aortic sound, are present. Tracheal tugging does not occur in tumor.

The effects of aneurism upon the lung are those of compression only, whereas the effect of tumor growth is consolidation, the growth invading the lung tissue. Pain is less severe in tumors than in aneurism; pressure effects upon the recurrent laryngeal nerve are more suggestive of aneurism than tumor.

The symptoms of aneurism improve with rest and iodide of potash, whereas new growths are continuously progressive and of shorter duration than aneurism.

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EDITORIAL COMMENT.

RAISING THE STANDARD.

The occasional appearance, in the current medical journals, of reports of attempted frauds in the securing of licenses to practice, as well as reports of instances in which medical colleges have been dishonest in the conferring of degrees (as recently happened in California), calls our attention anew to the prime necessity of state control of medical practice and education.

In an avocation in which the practitioner assumes the grave responsibility of treating morbid conditions which can only be properly treated by those intimately familiar with everything pertaining to the same, it seems that the licensing power should be in the hands of entirely impartial and disinterested parties.

Medical schools and medical teachers ought always to bear in mind the obligations which they are under to the public, and should

be impressed with their own responsibility for their alumni and students.

Many institutions appear to turn out medical graduates with as much irresponsible levity, as a ward school might turn out the "sweet girl graduate." During the past few years great advancement has been made in the matter of medical teaching, and the entrance requirement has been made a full four years of high school; but the trouble is, and always has been, a laxity—not to say dishonesty—in the enforcement of this requirement. No school, unless it be one which, by reason of liberal endowment, is financially independent, can be trusted to enforce the entrance requirement. If one school rejects a student, there are over a hundred other schools he can readily enter, and the school which has rejected the unqualified student has accomplished nothing but the loss of the student's fees.

It would therefore appear that admission to medical schools should be *only* through an officer appointed by and responsible to the State Board of Medical Examiners. This is an end devoutly to be wished, and there are some indications that it will soon be reached. In New York a student can be admitted to a medical college only on a pass card issued by the Regents of the University. In Wisconsin a student can be admitted on credentials only, either issued or endorsed by an official examiner appointed by, and responsible to, the State Board of Medical Examiners and approved by the Superintendent of Public Instruction. Other states will doubtless soon adopt a similar plan, and if they do not, a student rejected in Wisconsin may go elsewhere and graduate and then return to Wisconsin to practice.

The evil of insufficient preliminary education and inefficient medical teaching is being rapidly remedied, and the near future is bound to witness great improvement in these respects throughout the country.

WHO IS THE OFFENDER?

It is to the credit of Chicago that she possesses at least one judge who appreciates the sinfulness of fraudulent newspaper advertising, and who holds the publisher of a paper particeps criminis in this discreditable business. In sentencing Dr. H. H. Richards to a one year penitentiary term at hard labor, for using the mails for immoral purposes, Judge Landis said:

"In so far as the newspapers permit these suggestive and deceptive advertisements to be scattered broadcast among young boys and girls to their detriment and injury, my limited vocabulary is bankrupt to express my contempt for them, whatever they be or wherever published. I may say that the government officers may do well to con-

sider and take action with reference to those papers which are admitted to the mails and contain these demoralizing advertisements. The real offender is the publisher of the paper whose press continually revolves and sends out these nasty sheets, to go into homes throughout the land."

We would go a step further and make the publisher wholly responsible, because it is he who sells his soul for a mess of pottage. But for his solicitation of this class of well paying advertisements, the quack and fakir would never have put their wares on the market. The publishers brought them into life; how many of this guild will help destroy their own offspring?

A DESERVED CENSURE.

In our efforts to promote the observance of the ethical practice of medicine we would fall short of the duties imposed upon us did we not call attention to an article recently published in a local newspaper.

Dr. A. J. Puls, but recently returned from Europe, permitted to be published with illustrations—including his own portrait—an extensive article upon intraspinal anesthesia. That there were inaccuracies and misstatements in the article in question—always to be deplored because they lay the foundation for scientific misconceptions and false ideas that are hard to eradicate—hardly concerns us at the present time, and any concentration of attention upon this would be wide of the mark and not the purpose of our condemnation.

At its meeting in 1896, the State Medical Society of Wisconsin put itself on record as condemning "as unprofessional and inconsistent with the underlying principles of the code. . . . . the publication in the daily newspapers of cases, operations, scientific experiments or other matters of purely professional character, for the evident purpose of self-aggrandizement."

What are the facts in the case in question? They are these: The elaborate publication of a medical treatise that has naught to do with a subject that concerns the public welfare, and the exploitation in the newspapers of a surgical procedure that has been common property of the medical world since 1899. Not only is this now publicly heralded method of inducing general anesthesia intraspinally not of recent origin, but experience with it has been so large as to have proven its unreliability and danger, as compared with other methods now in use, and to have caused it to be discarded by the great mass of surgeons who at one time looked forward to it as a thing of promise.

Not to be unjust in our strictures, we will grant the possibility that an improved technic and the substitution of novocain for other

cocain preparations formerly employed, may lessen the dangers of the method, (though it cannot lessen the mental torture to which the patient is subjected); but this fact does not justify the reportorial exploitation of this procedure as the "latest wonder in surgery."

The reporter throws a sop to Cerberus in stating that "in an interview which only strategy and favorable circumstances made possible, the following data concerning the matter have been obtained." As a matter of fact, Dr. Puls' statement, as given at the Milwaukee Medical Society, would indicate that the information was willingly forthcoming, and that no strategy need have been resorted to. His statement, voluntarily made before that Society, constituted in no one's mind either an apology, a retraction, an explanation, or a justification.

The medical profession is at all times in a receptive mood, and alive to the importance of an early acquaintance with every new procedure that may aid it in successfully coping with difficult problems. However, aside from the consideration of any possible merit a newer technic may possess over methods formerly in use, we deem this form of public advertisement of the facts highly reprehensible. The daily press, which in the same issue prints the glaring advertisements of Medical Institutes and Cancer Quacks, is hardly the proper mouthpiece through which to acquaint physicians with the advances in medicine and surgery. There are other and willing channels, recognized by the profession as the legitimate ones, and the only ones through which they care to drink in wisdom.

Viewed in all fairness and from every standpoint that has suggested itself, we fail to find arguments in extenuation of the act committed by Dr. Puls.

AN ANALOGY.

The game of bunco is ever interesting—as it is varied. Possibly the right minded physician—he who acts in good faith—is inclined to labor under the error "that all the world is queer but me and thee, and sometimes me thinks thee is a little queer too." It is but natural that, viewing things from the standpoint of our own perspective, we should believe the bunco-men among the doctors to be the worst malefactors of the lot.

The prompt action taken by the Milwaukee city authorities in a recent case of alleged misrepresentation suggests an interesting analogy.

Some weeks ago a Jewelers' Association made charges against an auction house that was selling jewelry and watches. Goods of little

value, it is alleged, were sold at a high price, and the cleverness of the auctioneer induced sales that neighboring dealers could not make. Protests made to the mayor resulted in a revocation of the dealer's license on the ground of expediency and improper conduct. The license, it is claimed, was not used by the proprietor of the store to whom it was issued, but by an out-of-town auctioneer employed for this sale.

How clearly analogous is this situation to the case of the "medical institutes." Their licenses are taken in the names of individuals who are distant from the scene of action, and they delegate the dirty work to others, so that there is considerable difficulty in apprehending the guilty parties. That they make gross misrepresentation in dispensing their wares, needs neither argument nor proof.

We seek information: what would be the attitude of the chief executive of this or any other large city were he confronted with a protest of physicians, giving proof (would proof really have to be forthcoming in so obvious a case?) that the advertising medical concerns are guilty of fraud, ten-fold as disastrous to mind and body and purse, as was this jewelry auction affair?

RETURNS FROM THE MEDICAL BILL.

The announcement that the Wisconsin Medical Institute, a fake concern which has been doing a large and disreputable business in Milwaukee for several years past, has been closed up by the action of the Wisconsin Board of Medical Examiners, is of interest to the physicians of the state and of great importance to the public at large. It appears from the published announcements that the Wisconsin Medical Institute of Milwaukee, the Heidelberg Medical Institute at St. Paul, The Copenhagen Medical Institute at Davenport, Iowa, and the Vienna Medical Institute at Chicago, are all conducted by one and the same combination of quacks and mountebanks. The Milwaukee limb of this monster of medical iniquity has been advertised variously as the Wisconsin Medical Institute, "The Master Specialist," and the "Milwaukee Medical Institute", to meet the various aims and purposes as occasion required. It seems that the head and front of these various concerns has been a pair of "heavenly twins" known as Willis F. and Wallace A. Reinhardt, looking so much alike and acting in such an identically disreputable manner that it has been difficult for the officers of the law to separate one from the other, or to tell which was Willis and which was Wallace. It appears further that Wallace A. had succeeded in getting a license to practice in Wisconsin, and it was

upon this license that the pair, together with their co-partners in fraud, based their right to conduct these several institutes, which were incorporated, F. A. H. Reinhardt, being secretary and treasurer, and L. J. Reinhardt being president. In the conduct of their fraudulent enterprises the Reinhardts seem to have been associated with several smooth specimens of the numerous "Fakir" family who have acted as "physician in charge", "business manager", "advertising manager," etc., and to whom the Reinhardts have at times transferred their interests as occasion required. With this multiplicity of institutes and corporations, twins and business managers, physicians in charge, etc., and with all the changes that have been rung on the situation, there has been a regular hide and seek game going on between these scamps on the one side and the officers of the law on the other, but the game seems to be up, and temporarily at least the Wisconsin Medical Institute is out of business. The District Attorney has issued warrants for the arrest of the Reinhardts, but so far it has been impossible to locate them. Upon complaint of Attorney General Sturdevant and Mr. A. C. Umbreit, Counsel for the State Board of Medical Examiners, an injunction order has been issued by Judge Williams of the Circuit Court restraining the Wisconsin Medical Institute and the Reinhardts from advertising in any way in the newspapers published in this state, as physician, surgeon, or specialist, or permitting such advertisements, or dealing in drugs of any kind, conducting a mail order business for such purposes, conducting a Medical Institute, engaging physicians and surgeons for the above purposes, or collecting any fees. The action taken was based upon the law which was passed at the last Legislature directed against fraudulent and indecent advertising and fake medical institutes, and is one of the most important moves that has been made upon the authority of that law. In the complaint in this case it is said that the Wisconsin Medical Institute is being conducted "for the purpose of obtaining money at all hazards under the plea and guise of being able to cure certain diseases mentioned in its advertisements; that the persons calling for the purpose of consultation and treatment are induced by various means to pay large sums of money for the alleged treatments for what are often imaginary diseases; that in cases where persons apply for treatment for ailments from which such persons are really suffering, it will prescribe treatments which, instead of curing, will aggravate such ailments, thus inducing such persons so suffering to continue such treatment and thus the defendant corporation and the other defendants obtain large sums of money from such persons through fraud and deceit; and that

it has sold and still sells appliances calculated not to cure the ailment complained of, but to aggravate the same; that such appliances are sold at an extravagantly high price and for the sole purpose of extorting money from the victims who apply for its so-called medical or surgical treatment; that the Wisconsin Medical Institute and the Master Specialist, ostensibly organized for the purpose of conducting a medical institute, are but a comprehensive and extensive scheme inaugurated and conducted by the defendants to obtain large sums of money from persons under the guise and pretense of furnishing medical treatment; that the defendant corporation is not a medical institute, in fact, but a gross fraud perpetrated upon the people of the state of Wisconsin; and that it was organized solely for the purpose of enabling its incorporators, officers, and stockholders to carry on the fraudulent business."

It is hoped that the law under which this action is taken will operate to protect the public as it should, and that the efforts of these quacks supported as they are by the newspapers, who derive a large and illegitimate revenue in return for this support, will not avail. But let us not be too sure of this. In the prosecution of these quacks, the officers of the law are pitted against as sleek a crowd of rascals as they are ever called upon to deal with, and it is known that while this particular crowd has seemingly given up, they are already getting in shape for a new deal, and as a result of the unenviable reports which the newspapers were bound to print concerning the recent arrests, they are insisting that in return for their advertising in the future the newspapers shall enter into a compact not to publish anything concerning future prosecutions, etc. They know that if the public as well as the medical profession understand the situation and appreciate the rascality of their business, the game is up.

DANE COUNTY FEE SCHEDULE.

The Dane County Medical Society, which includes practically all of the 150 physicians and surgeons of the county, has adopted a schedule of minimum fees for services and has published it in the newspapers for the information of the public. The fee schedule does not "preclude the charge of two, three or four times the amount stated, depending upon the severity of the case, the responsibility required, the time employed, etc." In the city of Madison the fee for day calls is to be $1.50 and up, and for calls after 8 o'clock at night and till 7 o'clock in the morning $2.50 and up. For quarantinable contagious diseases double the usual fee is asked.

A few of the many listed items are: fee for venereal diseases, $5.00 cash for first office consultation; fractures $10 to $50; amputation of arm or leg, $50; lancing abscess, $5; circumcision, $20; tapping ascites, $20; cholecystotomy, or appendix operation, $100; confinement, normal, including three calls, $15; turning or placenta previa, $25; laparotomy, $100; adenoids, $25; cataract, $100.

Most of the fees mentioned are substantial and satisfactory, and doubtless higher than many physicians obtain in the city of Milwaukee. Obstetrics is evidently as poorly remunerative as elsewhere, and we can hardly see why men who obtain $40 for a curettage, demand but $15 for a normal confinement including three calls. A confinement may be normal and yet rob the physician of an entire night's sleep, or interfere with his office work during the day.

This fee schedule is, on the whole, very adequate, and guarantees satisfactory compensation. We find particularly commendable the fees listed for calls made at evening and night, and those in cases of quarantinable contagious diseases.

VACCINATION AND TETANUS.

The publicity recently given a fatal case of tetanus that occurred in a child that had undergone vaccination two weeks previously in a Milwaukee public school, is an unfortunate affair because of the panicky feeling thereby engendered, and the opposition to vaccination, to which it must lead. It seems to have been abundantly proven in this case, that wherever the source of infection may have been, it was not in the seat of vaccination.

We are reminded of a case that happened in Milwaukee several years ago: A child that had been vaccinated in school developed tetanus and died. Investigation showed that the vaccination wound had not healed and that it was not clean. These facts are admitted. But these additional facts were elicited: as soon as the mother noticed that a vaccine vesicle was forming, the arm becoming somewhat swollen and uncomfortable, she made applications of warm (not boiled) cistern water—that is, water that had drained into a filthy reservoir from the roof through rain pipes—using unwashed cloths that were black with accumulated dirt. Here, too, the charge was made that the vaccine was the cause of the tetanus infection. The vaccine wound was, it is true, the source of entry, but not the source of the contagion.

We have seen a small splinter imbedded in the thick integument of the sole of the foot as the only discoverable lesion in a case of tetanus. And there are cases in which even this slight evidence is lacking.

Better judgment should be used, evidence carefully weighed, the possibilities and probabilities considered, and the dangerous nature of such an incriminating statement thoroughly appreciated, before the opinion is passed that a given case of lockjaw is to be attributed to impure vaccine.

THE GREAT AMERICAN FRAUD.

Collier's Weekly (Jan. 5, 1907) makes an interesting summary of the events that followed out of the exposures made by Mr. Samuel Hopkins Adams. Out of two hundred and sixty-four concerns and individuals attacked, only two bona fide libel suits resulted. One of these is by the parties peddling Pink Pills for Pale People. The other is not named, but it is stated that the complainant will never bring the suit to trial.

The deliberate and methodical manner in which Mr. Adams investigated these many fakes and frauds, is well evidenced in the circumstance that Collier's has but a single retraction to make—but one charge for which to apologize, i. e., to the Oppenheimer Institute. Facts ascertained after the publication of the article reflecting upon this concern's methods, proved that an injustice had been done to certain gentlemen connected with the Institute, whose motives were really beyond question. It was learned that a considerable amount of charity work in its line of treatment was being done by this concern. The main fault to be found was in the use of extravagant claims in the advertising, which has now, however, been largely corrected. Certain other literature was brought to light that seemed to place this Institute on a far higher plane than many others of a similar nature.

The good effect upon the community at large of the Great American Fraud series of exposes, must never be lost sight of. It was a glorious motive that inspired the magazine and its correspondent—whether it meant increased circulation and advertising or not—and their success is an achievement to be proud of. Laws have been enacted as a result of this work, that will warn countless thousands of the danger that lurks in medical advertising frauds, and in consequence many of the latter will be forced out of business.

The correct labeling of all medicine with a list of contained drugs —when certain poisons are used—will curtail the use of these preparations; the taking of cocaine to cure a cocaine habit, and morphine to cure the opium habit, will cease. The field is thus left open for the employment of legitimate means and honest methods of practice for the cure of the many unfortunates who have become prey to these and other drugs.

NEWS ITEMS AND PERSONALS.

Dr. Joseph Volmer, formerly a practitioner in Milwaukee, died at his home in Hutchinson, Minn., aged 55.

Dr. and Mrs. Wm. H. McDonald of Lake Geneva, leave on February second, for a three months' trip to Europe.

Dr. Earl H. Ostrander, formerly of Appleton, Wis., died at his home in Ballard, Wash., on December 28, 1906, aged 78.

The Milwaukee Infants' Home received $2,200 as the result of a Charity Ball held for the benefit of the institution in December.

Dr. M. W. Waterman who practiced for many years in New York and northern Wisconsin, died in Chicago, January 25, aged 55 years.

Smallpox in Milwaukee is decreasing rapidly. Some weeks ago there were at one time more than eighty cases at the Isolation hospital, all of a mild type.

The Emergency Hospital of Milwaukee is undergoing an investigation as to its management by a committee of the Common Council. It has been proposed to place the hospital under the control of the Health Department.

Bequests of $10,000 to the Children's Free Hospital of Milwaukee were announced recently. Mrs. J. R. McCormick left $3,000 for the endowment of a bed, and Mrs. J. Heyl, in memory of her mother, donated $7,000 for a similar purpose.

Dr. Richard G. Kratsch, of Milwaukee, a graduate of the University of Würzburg, died January 22, 1907, aged 63. Dr. Kratsch was an assistant surgeon during the Austro-Prussian war in 1866, later was a ship surgeon, and previous to locating in Milwaukee practiced for a time in New York.

Dr. Henry C. Berger, a graduate of Rush Medical College, 1891, died on January 2, 1907, at the age of 42. Dr. Berger was a well-known Milwaukee physician and prominent as a social democrat. He was taken ill with heart disease at Racine, and died while on the way to the Emergency Hospital at Milwaukee.

Dr. C. O. Thienhaus, of Milwaukee, was dropped from membership in the Brainard Medical Society by vote of the members at their recent meeting in Milwaukee. Charges were preferred against him, which were declared sustained by a committee appointed for the purpose of investigation, and the question was submitted to a vote that resulted in his expulsion from the society.

The Western Conference on Tuberculosis will be held in Minneapolis on Thursday, Feb. 5th, in connection with the National Tuberculosis Exhibit. The Western Conference which was organized at Chicago in January, 1906,

is expected to embrace the following states: Ohio, Michigan, Indiana, Illinois, Missouri, Iowa, Wisconsin, Minnesota, North Dakota and South Dakota.

Milwaukee Medical College and Marquette College have been united to form Marquette University. The collegiate department of the University will occupy a new building now under construction on Grand avenue, while the medical department will continue in its present location on Ninth street. This is a union which is bound to redound to the credit and benefit of both institutions.

Membership in the A. M. A. We have been requested by the secretary of the A. M. A., to make a modification of the wording of an editorial in our last issue, so that there be no misunderstanding of the relationship of the physician to the A. M. A. We wish to explain that subscription to the *Journal A. M. A.* does not constitute membership in the Association, but that every subscriber to the Journal A. M. A., *who is a member of his County Society,* "is by virtue of this also entitled to membership in the A. M. A. without additional cost."

Changes at the Mulford Laboratories. Dr. Arthur P. Hitchens succeeds Dr. J. J. Kinyoun as Director of the Biological Laboratories of H. K. Mulford Company. Dr. Hitchens has been connected with the Mulford Biological Laboratories for the past eight years, during the greater period of that time having had personal charge of the preparation of antitoxins and curative sera. W. F. Elgin, M. D., continues in charge and direction of the Mulford Vaccine Laboratories. E. D. Reed, M. D., of Ann Arbor, Mich., has been engaged to direct research work, particularly in pharmacology and physiological chemistry.

Dr. J. H. McNeel, a prominent physician of Fond du Lac, died of cerebral hemorrhage on January 23, 1907, a few hours after having been found unconscious in his carriage on the road. Dr. McNeel was born at Lewis, N. Y., Dec. 7, 1837, and was graduated from Rush Medical College in 1863, and from Bellevue Hospital Medical College in 1873. In 1884 he was elected register of deeds of Fond du Lac county, and in 1870 was elected to the State Legislature. He served several years as pension examiner, and was prominently identified with various fraternal orders.

Dr. Thomas F. Mayham, former mayor of Fond du Lac, died suddenly of heart disease at his office, on January 21, 1907, aged 77. Dr. Mayham was born in Blendheim, N. Y., on January 31, 1830, and came to Wisconsin in 1854, residing first at Empire. He became superintendent of schools, and later studied medicine at Chicago Medical College, beginning his practice at Fond du Lac in 1859. In 1863 he was in charge of the government hospital at Cairo, Ill.

Dr. Mayham has held numerous public offices; in New York he was a delegate in the convention which nominated Franklin Pierce for president, and he has been chairman of the Democratic county committee of Fond du Lac. He served for a number of years as alderman, was president of the council

for four terms, a member of the county board of supervisors for five years, president of the board of education for two terms, a member of the library board, and for eight years mayor of Fond du Lac.

As a mark of respect to Dr. Mayham all the flags in the city were at half-mast, and at the hour of the funeral all places of business were closed.

Dr. Hugo Philler Honored. The following account of honors done to one who has richly merited them, is taken from a Waukesha despatch to a Milwaukee daily paper:

"Dr. Hugo Philler was the recipient of a grateful tribute to his services as a physician, Friday evening, January 4th, on the occasion of his sixty-ninth birth-day. A dinner was given in his honor by Dr. Byron M. Caples, president of the Waukesha Sanitarium. Speeches recording the splendid worth of Dr. Philler's long practice in Waukesha and the high esteem in which he is held by the medical fraternity were made by all of the physicians present. Dr. Caples was a felicitous toastmaster, and Mrs. Caples contributed a delightful poem in honor of the guest. Dr. Philler made a very feeling as well as happy response to the numerous enconiums bestowed upon him.

Dr. Philler is still in the prime of a vigorous manhood. His skill as a physician and surgeon has long extended beyond the local confines of Waukesha. His active and forceful career has been demonstrated in both state and national fields. Receiving his medical education in the universities of Germany, he became a surgeon in the civil war and is ex-surgeon general of the Grand Army of the Republic. For over thirty years he was surgeon of the Milwaukee road. He is an ex-vice president of the State Medical Society, and is a member of the State Historical Society and of the Wisconsin Academy of Sciences, Arts and Letters. He is an active member of the American Medical Association and of the American Association of Railway Surgeons; also of the Wisconsin State, Brainard, and Waukesha County Medical Societies."

The recipient of these honors is as much appreciated in the State at large as he is in Waukesha. We voice the feelings of the entire membership of the State Society in wishing Dr. Philler many, very many happy returns of the day.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.		FOR FOUR YEARS.	
1st Dist., H. B. Sears,	Beaver Dam	7th Dist., W. T. Series,	Sparta
2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
FOR TWO YEARS.		FOR FIVE YEARS.	
3rd Dist., F. T. Nye,	Beloit	9th Dist., D. L. Sauerhering,	Wausau
4th Dist., C. A. Armstrong,	Boscobel	10th Dist., E. L. Boothby,	Hammond
FOR THREE YEARS.		FOR SIX YEARS.	
5th Dist., J. V. Mears,	Fond du Lac	11th Dist., J. M. Dodd,	Ashland
6th Dist., J. S. Walbridge,	Berlin	12th Dist., A T. Holbrook,	Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

DANE COUNTY MEDICAL SOCIETY.

On December 11th at 6. P. M. the members of the Dane County Medical Society, to the number of forty, sat down to a bounteous banquet at Keeley's and enjoyed a fraternal and pleasant evening.

After a more or less successful hour of story telling and song, President Sheldon called the meeting to order to listen to a very instructive talk by Professor Charles R. Bardeen of the State University on the effects of X-rays on the body. Professor Bardeen reviewed briefly recent literature on the subject and gave a short synopsis of his own experiments on the effect of the X-ray on animal life.

Louis Kahlenberg, Professor of Chemistry, University of Wisconsin, followed giving a review of some two hundred experiments regarding the passage of substances through membranes, directing his attention particularly to the absorption of boric acid into the system by the external application of the saturated dressing in septic wounds.

Meetings are held regularly on the second Tuesday of each month at the Carnegie Library, Madison at 8. P. M.

Papers are limited to two in number with time limit of 20 minutes, with one member to open discussion with time limit of five minutes.

Attendance has varied from 26 to 45 at each meeting. Our membership is today 82. This includes practically the entire active profession in the

County. Interest and spirit in the Society and its work is excellent. A program committee of three arrange the work of each meeting some time in advance; 6 months should be the time as decided by vote of Society.

The following subjects have been presented since May last namely: May 15th, 1906, "Bovine Tuberculosis". Lecture by Professor H. L. Russell. Illustrated by lantern slides by Dr. Frost.

June 12th, 1906, "The Repression of Pulmonary Tuberculosis" Dr. F. I. Drake; "Malignant Disease of the Prostate", Dr. August Southoff.

July 7th, 1906, "The Prevention of Contagion" by Dr. J. P. Donovan. "Report of Committee on Fee Table".

August 14th, 1906, Social Meeting at Mendota Hospital on invitation of the Superintendent , Dr. Chas. Gorst.

September 11th, 1906, "Pneumonia and its Treatment" Dr. G. S. Gibbs.

"The Obstetrical Forceps, its Uses and Abuses," Dr. Joseph Dean.

October 9th, 1906, Continuation of the discussion on Fee Table.

November 13th, 1906, "Tubercular Meningitis", Dr. T. M. Tormey.

"The Relation of the General Practitioner to the Specialist," Dr. Geo. Keenan.

Resolutions have been passed prohibiting contract and Lodge practice, also the prohibition of the practice of charging or giving of fees for referring cases to the surgeon or specialist for operation or other treatments.

Of more than passing interest was perhaps the special meeting held on July 24, called for the purpose of investigating serious charges made in the public press against a nurse in charge of the Madison Isolation Hospital. The meeting was largely attended by the profession, the board of health, and press representatives. The accusations were found to be entirely groundless and a public retraction was forced from the guilty party.

The spirit of the meeting may be inferred from the remark of attorney T. C. Richmond at close of the meeting, namely: "I hope that no editor or newspaper reporter in Madison will be taken sick in the near future."

During the coming year we propose to keep up the same enthusiastic and aggressive spirit of progress. Among other good things in contemplation is a medical library, a pathological exhibit, etc., etc.

J. NOER M. D., *Secretary.*

FOND DU LAC COUNTY MEDICAL SOCIETY.

The regular bi-monthly meeting of the Fond du Lac County Medical Society was held at the Ewing Hotel, Fond du Lac, January 9, 1907, at 8 P. M. After doing justice to a four course supper, the members of the society were in a frame of mind to enjoy the papers prepared for the meeting.

The first on the program was Dr. G. F. Scheib, who gave a paper on *Keratitis.* After considering the importance of the cornea, Dr. Scheib discussed the different forms of inflammation to which it is subject, illustrating with reports of personally observed cases. He emphasized the importance of constitutional treatment in interstitial keratitis and the need of treating the catarrhal processes of the nose and nasopharynx in phlyctenular keratitis in order to get permanent results. He referred to the frequent use by the laity of poultices in various forms of eye disease and strongly condemned the custom, urging the use of hot moist compresses instead. He laid great stress upon the need of the most rigid asepsis in all eye injuries, even the most

trivial, and dwelt upon the necessity for physiological rest to the inflamed or ulcerated eye in addition to the use of what other treatment may be indicated in the various conditions.

The next number on the program was a paper on *Intestinal Obstruction* by Dr. Wiley.

F. A. READ, M. D., *Secretary.*

GREEN LAKE—WAUSHARA COUNTY MEDICAL SOCIETIES.

The annual meeting was held at Berlin, Dec. 6th, The following officers were elected for next year: president, Dr. Geo. E. Baldwin of Dartford; vice-president, Dr. H. B. B. Poppe of Wautoma; secretary and treasurer, Dr. B. E. Scott of Berlin; censor for three years, Dr. Geo. A. Baldwin; State delegate Dr. C. E. Thayer of Markesan; alternate, Dr. L. H. Prince of Berlin.

Dr. Geo. T. Blynd of Berlin and Dr. A. E. McAllin of Hancock were elected to membership; and Dr. H. D. Fuller and Dr. L. H. Prince were taken in on cards from Outagamie and Columbia Counties, respectively.

Papers were read by Dr. Geo. T. Blynd and Dr. B. E. Scott.

It was decided to hold the next meeting at Silver Lake during the first week in June and to make this a picnic occasion.

B. E. SCOTT, M. D., *Secretary.*

JUNEAU COUNTY MEDICAL SOCIETY.

The fourth annual meeting of the Juneau County Medical Society was held at Mauston, Dec. 4th, 1906, the president Dr. Smith in the chair.

The President's Address, *The Status of the Medical Profession in Juneau County,* was carefully prepared and contained many valuable suggestions.

A paper, *The Blood and Microscopical Findings in Anemia,* was presented by Dr. C. A. Vogel and was very interesting, also a paper *Old and New Surgery* by Dr. W. M. Edwards, which was listened to with much interest. The discussion following the papers was general.

The election of officers resulted as follows: president, Dr. C. S. Smith, Elroy; vice-president, Dr. F. T. Field, Elroy; secretary and treasurer, Dr. A. T. Gregory, Elroy; delegate to State Convention, Dr. E. H. Townsend, New Lisbon; censor, Dr. C. S. Smith.

The attendance was small. Juneau County has a right to have as good a society as any county of its size in the State, and if every physician in the county who pretends to keep abreast with the profession will arise, shake off his indifference, wake up to his calling, Juneau County will have a society the equal of any. The president and secretary cannot do it all, every member should shoulder his part of the responsibility—every member of the society should endeavor to attend each and every meeting of the society and keep in touch with scientific medicine. Many stay away for fear they will lose a call or an office prescription. Those patients who wait several hours for a doctor to return from a medical meeting or society appreciate his services more highly than the one who is always waiting for a call and who seldom or never attends medical meetings. The one is up and abreast with the medical profession, the other has a tendency to keep in the ruts. Let each one of us do our part and endeavor to encourage

every reputable physician of the county who is not already a member of this society to become one, then the success of our Society is assured.

The next meeting of the society will be held some time during June.

A. T. GREGORY, M. D., *Secretary.*

MANITOWOC COUNTY MEDICAL SOCIETY.

The annual meeting of the Manitowoc County Medical Society was held at Manitowoc, January 15th. It being a business meeting a general discussion was entered into for the betterment of the profession in general. Amongst the subjects receiving attention were Insurance Examination Fees, Fees of County and City Physicians, Fraternal society and contract work.

The physicians of the county took a firm stand some time ago regarding all lodge and contract work which has been most satisfactorily adhered to.

Committees were appointed to investigate certain phases of professional work and instructed to report at next meeting.

The report of the secretary and treasurer showed a very commendable condition of affairs so far as membership and finances are concerned but lack of enthusiasm as to the society in general.

Dr. Bernard Krueger of Reedsville was elected to membership.

The following officers were elected for the ensuing year: president, Dr. Eugene Gates, Two Rivers; vice-president, Dr. James Burke, Manitowoc; secretary and treasurer, Dr. J. E. Meany Manitowoc; censor, Dr. C. M. Gleason, Manitowoc.

J. E. MEANY M. D., *Secretary.*

ONEIDA COUNTY MEDICAL SOCIETY.

A regular meeting of the Oneida County Medical Society was held Dec. 19. Dr. F. S. Hinman presented a very interesting paper on *X-ray Treatment of Skin Affections.* He gave his experience with the X-Ray not only in skin troubles but in epithelioma and in the post-operative treatment of other cancers also. He reported the results to have been very satisfactory thus far, but considers that several years should elapse before we may feel certain of permanent results. Dr. Stone read a paper on *Breech Presentations.*

The following officers were elected: president, Dr. C. A. Richards; vice-president, Dr. J. M. Hogan; secretary and treasurer, Dr. S. R. Stone; delegate to State Meeting, Dr. C. A. Richards; alternate, Dr. J. M. Hogan.

The question of adopting a $5.00 fee for old line insurance examinations, and a $2.00 fee for all fraternal societies was discussed.

S. R. STONE, M. D., *Secretary.*

RACINE COUNTY MEDICAL SOCIETY.

The December meeting of the Racine County Medical Society was held at Racine, December 6th.

Dr. Lorenzo Boorse, of Milwaukee, read a paper on *Infant Feeding.* Dr. John Meacham read the report of a case of *Gangrene of the Lung.*

The election of officers for the year 1907 resulted as follows: president, Dr. C. A. Flett, Waterford; vice-president, Dr. R. M. McCracken, Union Grove; secretary and treasurer, Dr. C. A. Obertin, Union Grove.

Dr. F. R. Garlock, Sr. was elected delegate to the Annual Convention of the State Medical Society and Dr. E. A. Taylor alternate.

Dr. F. J. Pope was re-elected to the Board of Censors for 3 years. The attendance was gratifying, being larger than at any previous meeting.

Dr. Windesheim councillor of the 2nd District was present.

C. A. OBERTIN, M. D., *Secretary.*

ROCK COUNTY MEDICAL SOCIETY.

The Rock County Medical Society held its annual meeting in the City Hall, Beloit, on Dec. 21st with a good attendance. Good papers on interesting subjects were presented and fully discussed by the many members present.

Officers for 1907 were elected as follows: president, Dr. J. M. Evans, Evansville; vice-president, Dr. M. A. Cunningham, Janesville; secretary and treasurer, Dr. W. L. Crockett, Beloit.

ST. CROIX COUNTY MEDICAL SOCIETY.

St. Croix County Medical Society held its annual meeting Dec. 18th, at Hudson. A number of visitors were present, two papers were read and much discussion followed.

A program for the next year was adopted. Two papers for each meeting were assigned, and it was unanimously agreed to hold no meetings in the months in which the State Society or the District Society meets.

A banquet was held in the evening at the Commercial Hotel. The next meeting will be held at Hudson Jan. 15th, 1907.

The following officers were elected: president, Dr. H. W. Banks, Roberts; vice-president, Dr. L. P. Mayer, Hudson; secretary and treasurer, Dr. E. L. Boothby, Hammond; delegate to State Society, Dr. C. F. King, Hudson; alternate, Dr. Geo. Martin, Baldwin.

E. L. BOOTHBY, M. D., *Secretary.*

WASHINGTON COUNTY MEDICAL SOCIETY.

The December meeting of the Washington County Medical Society, held at Jackson, December 26th, 1906, was called to order by president Dr. Heidner.

The question of Life Insurance fees for examination was thoroughly discussed by all present. The Society concluded to suspend the resolutions passed a year ago, and lay the matter before the State Society, and urge that body to take the matter up at their next meeting and pass rsolutions and present them to the Life Insurance Companies. As one County Society alone can not do much in this matter, so the State has to take up this subject and work it out to the satisfaction of all. We hope that the State Society will be successful, as "United we stand, devided we fall." Next followed the election of officers: President, Dr. J. E. Reichert, Schleisingerville; vice-president, Dr. E. J. Butzke, Jackson; secretary and treasurer, Dr. C. Bossard, (re-elected); delegate, Dr. C. Bossard.

The next meeting will be held at Allenton the last Wednesday in March.

C. BOSSARD, M. D., *Secretary.*

WAUKESHA COUNTY MEDICAL SOCIETY.

At the December meeting of the Waukesha County Medical Society the following officers were elected: president, Dr. M. R. Williamson, Oconomowoc; vice-president, Dr. Hugo Philler, Waukesha; secretary and treasurer, Dr. M.

M. Park, Waukesha; censor, Dr. J. P. Ward, Waukesha; delegate, Dr. Hugo Philler, Waukesha; alternate, Dr. A. J. Hodgson, Waukesha.

Dr. Shimonek of Milwaukee gave a most interesting and instructive talk on *Malignant Growths of the Uterus.*

Dr. Peterson of Waukesha gave a paper on *Splenectomy* with an illustrative case.

At the January meeting Dr. Hugo Philler gave an excellent paper on *Paranoia* which was ably discussed by Dr. B. M. Caples.

M. M. PARK, M. D., *Secretary.*

TENTH DISTRICT MEDICAL SOCIETY.

The meeting of the Tenth District Medical Society was held Nov. 22nd, at Eau Claire with an attendance of about 50.

Dr. Wilmarth of Chippewa County read a most interesting paper, *"Factors to be considered in the examination of the Feeble Minded".*

Dr. Satre of Barron County read a paper on *"Suppurative inflammation of the Middle Ear".*

Dr. Woodworth of Pierce County read a racy and humorous paper on *Medical Pioneers of the Northwest* written in his own inimitable style. Dr. Husing of Dunn County read a paper on *Acromegaly* with report of a case. Dr. E. S. Hayes, of Eau Claire County read a paper on *Extra-Uterine Pregnancy.* Dr. Mason of Eau Claire County read a paper on *Chronic Nephritis with Induration.* Dr. Manning of Eau Claire County read a paper on *Pernicious Anemia with a Clinical Case.* The latter excited much discussion. As this was the most interesting and best prepared paper on the program it was decided to offer it to the Program Committee of the State Society as the contribution of the Tenth District.

The banquet was held at the Galloway House at 8 P. M. and was a most enjoyable affair. Dr. Grannis was toastmaster and Dr. Chase responded to the toast "How to run an Automobile"; Dr. Manning to "The Fair Sex"; Dr. Werner to "Any old thing—What's the Use" and Dr. Boothby to "Trials of an Organizer".

The next meeting will be held at Eau Claire, Nov. 21st, 1907. This meeting will be entirely devoted to *Preventive Medicine.* Local boards of health, Members of the State Board, and all citizens interested in public health are to be invited.

An effort will be made to secure some person of repute to address the public on some phase of this great question.

Dr. E. S. Hayes was elected president and Dr. E. L. Boothby secretary.

E. L. BOOTHBY, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

Dr. T. Willett presented a paper on the subject of *Medical Papers by Young Men,* which was discussed by Drs. Washburn, Jermain, Elmergreen, Seaman and Hopkinson.

The Relation of the Tonsil to Infection and Infectious Diseases was the title of a very excellent paper presented by Dr. R. C. Brown. Dr. Brown laid much stress upon the protective function of the tonsils. In the discussion Drs. Bassett, Jermain, Mishoff, Boorse, Hitz, Elmergreen, and Hopkinson took part.

Dr. A. J. Patek read a paper on the *Open Air Treatment of Pneumonia.* This will appear later in the Journal. The paper was discussed by Drs. Stoddard, Barth, Willett and Boorse.

Dr. T. L. Harrington reported a case of aneurism of the descending aorta just below the arch which ruptured into the pleural cavity.

H. E. DEARHOLT, M. D., *Secretary.*

FOX RIVER VALLEY MEDICAL SOCIETY.

The annual meeting of the Fox River Valley Medical Society was held at Green Bay, January 15, 1907. A committee, consisting of Drs. Redelings, J. R. Minahan, and D. J. O'Connor, was appointed to draft resolutions relative to the death of Dr. J. T. Reeve of Appleton. The following officers were unanimously elected for the ensuing year: President, Dr. Walter R. Hicks, Menominee; 1st vice-president, Dr. D. H. Gregory, DePere; 2d vice-president, Dr. R. C. Buchanan, Green Bay; secretary and treasurer, Dr. H. P. Rhode, Green Bay.

At the afternoon session the committee on resolutions, consisting of Drs. Walker, Todd and Buchanan, reported the following resolutions which were unaminously adopted by a rising vote:

Whereas, We, the members of the Fox River Valley Medical Society, consider that an adequate and safe examination of an applicant for life insurance cannot be made for a fee of less than five dollars,

Resolved, That we, the members of said society, pledge ourselves to use our influence in behalf of those insurance companies which have not been parties to the attempt to reduce the compensation for this, the most important feature of entrance to safe and conservative life insurance, and

Resolved, Furthermore, that we recommend that the members of this society pledge themselves, individually and as an organization, to refuse absolutely to make an examination for less than a minimum fee of five dollars.

The secretary was ordered to have the above resolutions printed and a copy sent to every member of this society, to the Journal of the State Medical Society of Wisconsin, and to the Journal of the American Medical Association.

Drs. Ira M. Martin of Green Bay, Geo. H. Boyce of Little Suamico, Wis., M. H. Fuller of Angelica, and J. H. Bogan of Green Bay, were elected to membership. The following program was rendered:

1. *Typhoid Fever in Infancy and Childhood,* Prof. John M. Dodson of Rush Medical College.
2. *Diagnosis and Medical Treatment of Gastric Ulcer,* Dr. J. R. Barnett of Neenah.
3. *Surgical Treatment of Gastric Ulcer,* Dr. J. R. Minahan of Green Bay.

The papers were all excellent and were discussed freely. Dr. Dodson was thanked for his address and was made an honorary member of the society. The program committee was authorized to make arrangements to hold the midsummer meeting at Menominee in conjunction with the Upper Peninsula Medical Society.

The annual banquet of the society was an enjoyable affair. President R. E. Minahan officiated as toastmaster, and toasts were responded to by Drs. Dodson, Barnett, and Echols. "Auld Lang Syne" closed the ceremonies.

CHESTER M. ECHOLS, M. D., *Secretary.*

THE WISCONSIN
MEDICAL JOURNAL
FEBRUARY, 1907.

ORIGINAL ARTICLES.

NERVOUS AND MENTAL DISEASES IN GENERAL PRACTICE.*

BY RICHARD DEWEY, A. M., M. D.
WAUWATOSA, WIS.

It is not ordinarily considered that states of mind and "nerves" are a factor in the practice of medicine; they are indeed apt to be ignored, and those who do give them particular attention are sometimes suspected of being faddists. I may not be free from the tendency commonly attributed to the specialist of attaching too much importance to his particular organ or field of study, but I refer at present only to morbid mental and nervous conditions in the patient, although such conditions may be present in the doctor. That, however, is another story.

It has been true in the past and is so still, that mental medicine receives most inadequate treatment in the medical curriculum, and the same is true of nervous diseases. Some beginnings can to-day be discerned of teaching neurology and phychiatry in a more competent manner, but the majority of the men occupying to-day the field of general practice have learned little of neuroses and still less of psychoses. We cannot stop to inquire into the causes of this condition, except to say that where there was little known there was, naturally, little to teach. We have only arrived at the threshold of the structure which serves as the dwelling-place of the human mind, and places us in relation with the outside world, and which is our home more really than the house in which we live. Yet, when we have learned the order of architecture and the exits and the entrances, and after the

*Read before the 60th Annual Meeting of the State Medical Society of Wisconsin, Milwaukee. June 28, 1906.

plan and the building material are understood, after we have explored the chambers for music, the halls for painting and sculpture and banqueting, and the rooms for work and rest, we are still in profound ignorance of the secret power by which the spirit leaps the gulf between mind and matter. We are, however, learning more and more of impenetrable and impalpable agencies and are beginning to call them to our aid in the combat with disease. The coarser pharmacy of an elder day is giving place to more refined and ethereal preparations. A few years ago, the assertion that we should treat and cure disease by radiations of electric light and by the dark light of Roentgen, would perhaps have been met with derision, but the effects of Roentgen's or Finsen's rays upon the human body are not more surprising than the influences of thought and emotion. We are also coming to see that these latter may marvelously work for good or ill upon the organs and functions of the body.

Whether we flush with pleasure or blanch with fear, it is thought that controls our circulation, changes the action of the heart, and may likewise greatly modify our nutritive processes. Ideas, the product of the mind and soul working through certain cells and fibers, may bring life and death.

I recently read of a remarkable illustration of this power of mind over body, given by the great syphilographer, Fournier, who states that in two cases of syphilitic infection all the difference between fatal and harmless results may be in the fact that one patient has knowledge of the danger incurred while the other is ignorant of the possible consequences. He declares that an extra-genital and innocently acquired chancre may bring death to a medical man through the depressing knowledge and fear the latter has of the possible results, thus causing him to succumb to a morbific influence, while the really guilty patient goes unscathed.

Even in surgical operations, the nervous state of the patient is not of small importance. We know that hypnotic suggestion may be and has been made to take the place of the anesthetic in surgical operations. A few years ago a patient was brought to me who had become wildly delirious upon the operating table after a few whiffs of chloroform, so that the operation had to be postponed. This patient was able after a few weeks of "rest cure," to return to the surgeon and undergo the operation with coolness and success, the only difference being, that a state of nervous exhaustion had in the meantime been relieved and a new supply of nerve force acquired. It certainly makes a great difference as to whether an operation is well or ill borne, if the patient is in a confident and easy, or frightened and

anxious state of mind. Even the day of the week or the number of the room will make a difference with one who has the "Friday" superstition or thinks there is a fatality in the number "13," and however absurd we think these notions, we have to deal with them as facts. It is all the patient's imagination, but the patient's imagination is sometimes as much a factor as would be a tumor or a fracture. The element of mystery and incomprehensibility in the effect of mental states upon physical conditions, conjoined with human weakness and frailty, has had the universal result of making nervous diseases and insanity a strange territory, in which, while a few earnest explorers were always at work, the mass of wayfarers were scientific tramps and imposters, where shrewd rascality has led the easily gullible bog-trotters of science a merry dance over the fens and reeking swamps, the one chasing the "nimble yellow boy" or "green back" while the other sought the mysterious, shining but elusive "William of the Wisp." Here the mesmerists, the hypnotists, the Eddyite, the divine healer, the mediumistic fakir, have gayly disported themselves in this half-world of science.

The consequence is that the men of hard common sense and of practical skill in medicine have ignored the whole territory and left it good and bad, to "welter and ferment, in its own 'culture medium.'" They have so far remained in ignorance of the country of psychopathology that they assumed there was nothing but impenetrable forest, jungle and swamp, and no inhabitants but slimy monsters. The mention of mental therapeutics only calls up in many minds an image of sorcery or of something of a "fishy" or "faky" nature to be given a wide berth. But there are fine arable lands and fertile plains and lofty mountain ranges in this territory of psychopathology and the climate is more glorious than that of the Hesperides. It is the promised land of medicine to-day. Mental medicine is now preparing to assume her proper place, and the understanding of her claim requires a readjustment of medical study. In particular is normal psychology a necessary preliminary to the understanding of the psychoses and this among other things will have to be included in pre-medical studies before the "psychological moment" can arrive. When it does arrive, however, it will "come to stay."

Those cases occurring in general practice in which it is a question of dealing with morbid ideas are apt to receive scant courtesy. There is not much in the curriculum of "medicine as she is taught" that is calculated to aid the practitioner in grasping psychopathic conditions. His first thought is to pass the patient along to some more innocent or impecunious brother, or if he grapples with him or his

ideas it is often mainly by telling him there is nothing the matter, that his or her imagination is super-heated and that all he or she needs is to become calm and take a rational view. If the case is one in which extreme and uncontrollable phenomena and raving or maniacal conditions appear, overpowering hypodermic medication is resorted to with the idea of "shelving" the patient for the time, and this process is repeated as often as may be necessary to keep him "shelved." Thus, in a figurative sense "to skin and film the ulcerous place, whilst rank corruption mining all within, infects unseen."

Psychopathic patients are thus sometimes kept unwisely at home; sometimes hurried off to the asylum needlessly; while other patients in whom the condition is outwardly calm but in reality urgent and even dangerous from concealed delusions or homicidal or suicidal impulses, are left without control until it is too late, till irreparable mischief is done; till some catastrophe results or, perhaps, till the case has passed the most favorable period for treatment. I have occasionally seen patients brought at last to the asylum or sanitarium who had, so to speak, been treated to "knock-out drops" to keep them quiet in their own homes or in the general hospital wards, who should have been promptly placed in special keeping with all facilities at hand for appropriate mental treatment and nursing. Again, I have to see constantly numbers of patients who have been kept too long without appropriate treatment and for whom the favorable time has passed by, who would probably have made a recovery if treated early.

Another error which is often committed is that of sending a patient to travel when he is utterly incapable of being interested in anything except his own delusions or is too weak to make the exertion necessary in sight-seeing or going from place to place.

I cannot better illustrate what I mean by my title than by relating a few instances of the operation of psychical or psychopathic influences in the ordinary field of medical practice.

A friend of mine eminent in internal medicine once told me of a man consulting him about a severe headache who, on holding the thermometer in his mouth three minutes, pronounced himself entirely cured and wanted to purchase that "remarkable instrument" at any price so that he could cure himself in future. This was a man of good ordinary intelligence in practical matters, though of no education, but who was neither more or less gullible in all medical matters than are many of the more cultured and intelligent laity. I have more than once been credited with almost miraculous power when consulted by victims, real or imaginary, of specific disease, who believed a tumor was growing in the brain, paralysis was impending,

or dementia imminent, and under the influence of these depressing ideas working secretly in their thoughts for weeks and months, had reached a state of desperation bordering on madness. A simple statement of facts and a little tonic or calmative medicine were all the case required. And yet these persons, having perhaps a smattering of medical knowledge and suffering as they all were from exhausted nerve energy, believed they actually felt working within themselves the poison that was to paralyse or destroy. The condition of neurasthenia (or as Dana has recently proposed to label it, "phrenasthenia," believing the fault to reside in the brain or the mind rather than in eye or uterus or stomach, one or the other of which organs is so generally saddled with the blame), is one which we hear constantly named, and the name is often given as if it afforded a full explanation of the diseased condition. Are we not apt to forget that we are in reality no wiser after than we were before we pronounced this convenient word, and to overlook complicating disorders of a physical character that need assiduous care and attention? When we have a patient constantly complaining of precordial malaise or choking or oppression in the throat or embarrassed breathing, or the strange and painful sensations, whose name is legion, that are referred to the head, chest, stomach or back,—when in such a case we find no sign of any lesion, we are not absolved of all further duty by saying it is "nervousness" and giving strychnine, hypnotics, bromides, hydrotherapeutic measures and massage. These cases need further study; the physical disorder has its origin often in months or years of mental strain or worry—sometimes overwork, though this is rare. Dana is not mistaken in referring the mischief to the brain, but it seems probable that a better understanding of the sympathetic chain of ganglia will help to make clear these states. The brain, to be sure, is involved, but the sympathetic ganglia seem to be a necessary link in the chain. In most of these cases the "coenesthesis," the vital sense, the consciousness of well-being which belongs to health is impaired, and it seems probable that the tension, the nutrition, or the chemical conditions of the sympathetic system have much to do with the sense of well-being. This "coenesthesis" is the sensation which accompanies a harmonious and unified state of all organs and functions. When certain organs and their functions are disordered by morbid states the "coenesthesis" is broken, the organism no longer acts as a unit, certain organs or elements "go on a strike." If this condition only affects vegetative and spinal functions we have the innumerable neurasthenic pains; if it extends to cerebral functions, we have disordered and disjointed working of the mind, and delusions of various kinds; but in cases

where somatic organs and regions other than cephalic are the seat of the sensation, it is probable that nutrition, circulation and the functions of the sympathetic are the seat of the mischief. I am speaking in all these instances of cases where we have no demonstrable physical lesion. These are the cases in which the general practitioner is most at sea. He finds no disease and tells his patient there is nothing the matter; that these are purely imaginary troubles. When that explanation is given, the patient will either try to accept it and to believe there is nothing wrong or will conclude the doctor does not understand the case and seek the assistance of "Eddyism" or "osteopathy." In any case, telling the patient the trouble is "imaginary" will do no good. To the patient it is *real* and must be treated as a reality. It is analogous to the case of a patient who believed there was a snake in her stomach for whom the doctor pretended to remove a snake by giving an emetic and secretly placing one in the matters vomited, which were then shown to the patient and the assurance given her she had been cured. The next day she still had an animal in her stomach but it was now a lizard. So these delusions take on protean form, but there is always one present. If it is not a snake it is a lizard and argument or any other measure which does not really improve the state of the patient will be of no avail. In fact, argument is worse than useless. When we have hysterical paralysis, we have only an idea to contend with, but telling the patient she can move her leg if she wants to is of no use—in fact it provokes anger and opposition and makes her think the doctor does not understand her case. On the other hand, if he does not contradict her, but takes measures for her relief, metallic discs or what not, she will eventually come to think she *can* move her leg and then it *will* move. I have known grave surgical operations to be done—ovariotomy, appendicitis, operation for gall stones and for floating kidney (in one case three of these were done in one patient)—when from beginning to end, there were only psychical or hysterical pains. In men I have seen circumcision and castration under like circumstances.

We are apt to urge these nervous patients to engage in a conflict with their morbid ideas and to tell them they can fight them "to a finish." I discovered long ago that this is generally mistaken advice and often adds injuriously to the nervous strain. What we should do is to explain to them that these symptoms will spontaneously vanish as they get stronger and that they should not feel uneasy about them, they will do no harm. They should feel that they are moving along quietly and steadily toward health, that they will make the voyage uneventfully and that the wind and tide are in their favor. They do

not have to blow in the sail or push the car or turn the crank themselves. And another thing that is very helpful to nervous cases is to thoroughly examine before pronouncing any opinion, and even then not to make light of their symptoms. The examination is important not only in itself but in the impression it makes upon the patient. Let patients tell their whole story to you (but forbid them otherwise to talk of themselves), examine every organ and all the secretions, so that they will feel you have covered the whole ground,—and while speaking of patients telling their story, I want to say there is often more importance, as they think, in what *they say to you* than in anything you can *say to them*. The same thing is true of patients' friends —let them tell you all they wish to about the case; then they will think you understand it, otherwise they often will not.

There are of course limits to the amount of talk you can listen to and you must be paid for your time, but I have known many doctors to injure their practice by shutting off abruptly the interviews with patients and their friends. On the other hand, it is necessary generally to impress them that you control the case and are not subservient to them in any particular. One may say there are two classes of patients, those that expect an autocratic and imperative control from the doctor, and those who think they know more than he does and simply expect him to "second their motion" and approve their views. Another way in which ground is sometimes lost in a nervous case is by giving orders that are impracticable, from being too minute or ill adapted to the case. There are a thousand and one things important in the patient's eyes which are really matters of indifference. In some cases it is literally true we must find out what the patient wants to do and order him to do it, or make exceptions of anything considered really injurious.

Many nervous and hypochondriacal patients think they have heart disease, paralysis, cancer, strabismus, tuberculosis. In such cases what you have to contend with is an idea, but it is a real obstacle to health. You cannot combat it directly, it must be overcome by a "flank movement." There will be found in such cases, first a psychopathic constitution, and second, external circumstances and environment that have developed the germ—overwork, anxiety, disappointment, shocks, moral or physical—the germ, however, is an unhealthy idea and must be combated by healthy ones. Such persons are generally ambitious, egotistical and over-sensitive in a high degree; some are explosive in their style; others outwardly calm and inwardly tempestuous.

Many such patients are so abnormal or perverted in all their sensations that when they are exhausted to the verge of collapse, they feel no weariness, and when they are really much better and stronger they will, *for the first time,* begin to be tired.

We must be able to penetrate beneath the outward appearances. I have often sought to instruct myself by imitating the attitude, movements, and facial expressions of a patient, and have found I thus gained additional light as to the hidden working of the mind. With skill and practice it is possible to learn to read speech from the lips without hearing what is said. A certain attitude belongs to healthful and pleasing emotion, a certain other to anger and conflict, still another to devotion and prayer. The only meaning in material things is that which the inner mind and spirit give to them, and it is with this that we have often chiefly to deal in nervous and mental maladies.

Discussion.

DR. W. F. BECKER of Milwaukee: The handling of cases in private practice. of mental and nervous diseases, is certainly very different from what it is in institutions. We see patients in earlier and milder stages. But we lose, perhaps, in many respects by not having the close daily contact that the man in the institution gets with a patient, the possibility of influencing him, especially in mental cases, by suggestion and by operating, one might say, upon the subconsciousness, and regulating the association of ideas, and in general in correcting errors in thinking, original impressions, etc., which necessitates much conversation, suggestion and association with the patient, in closer contact than private practice affords.

There are a number of mild cases better treated outside of the institution —mild cases of neurasthenia and melancholia—and I think more could be so treated if it were not for the danger of suicide which is especially great in melancholia, and which cannot be guarded against in private practice, and sometimes not even in sanatorium work.

One sometimes feels like complaining of the indiscriminate and rigid rules governing the visits to patients in public institutions, when they are taken away from home surroundings; and I think where they are very indiscriminate one can properly protest against these rules.

Speaking to the point of the general practitioner's attitude in nervous cases of cerebral palsies in children who grow up without proper care, cases which if cared for by the neurologist and the orthopedist in conjunction, would produce much better results. These patients are often neglected; they are told by friends and sometimes by physicians that they will outgrow these deformities. and they pass into the hands of osteopaths, remedial gymnasts, masseurs, and the like, and sometimes no treatment is given them at all. Perhaps it is our own fault that we do not hold these patients—that we lose so many cases of nervous and mental disorders to the osteopaths and Christian Scientists. Patients want "something done" for them and we are too apt to be satisfied with the diagnosis and prognosis.

In regard to mental cases, I find this common error, that general practitioners are apt to make, namely—that because a patient is insane, that that is *ipso facto* a reason for commitment to an asylum or sanitarium; but the fact that a person is insane is no reason why he should necessarily be shut up.

Then too, a common impression is that there is no telling what a man who is insane will do. How often do you hear physicians say, "So long as he is insane, you cannot tell what he will do." But as a matter of fact you can predict fairly well what his conduct well be if you know his mental condition.

I have also seen cases of early paretics indulged in visionary and expansive schemes. I have seen patients go from one person to another to explain some hifalutin idea, some patent scheme, perhaps, in furthering which the sympathizing friend would encourage the patient. It is no wonder that the patients have the idea strengthened by reason of being encouraged from such good and reliable sources. This is part of the common impression that the insane must be indulged—that you must not "cross" them.

Another common mistake in mild cases of melancholia and in neurasthenia, is to advise diversion, exercise, travel, etc. I think that is commonly done by the general practitioner. Instead of advising bed-treatment in many of these cases, they are advised to seek constant exhaustion producing activities. I have seen almost always bad results from that sort of thing. The patient seeks diversions of his own accord as soon as he can admit them to his mind. But often there is such a condition of mental pain that any diversion is painful; and long walks, amusements, etc., are inimical to his welfare, and the patient had better be put to bed.

I notice, too, that many of these patients are not understood, and it is very saddening to know how far this extends; that cases of mild melancholia are not recognized as such by the family and by the physician, and often even by the husband who expects a great deal of his wife and regards her as simply indulging herself, etc.; I have had patients in my office who were ready to jump into the lake. I remember a woman who was ready to jump into the lake with her children, and yet her family thought she was simply indulging her foolish imagination. "It's just imagination," they say with contempt for the symptoms of a very real disease.

Unfortunately neurasthenia itself has not very much support from many sources in medical practice. I recall a remark of a surgeon, a brilliant man who scorned the idea of neurasthenia; he had "no use for neurasthenia"; he looked upon it as if it were altogether discreditable if not somewhat immoral. Now that is very near denying the physical basis of mind, it seems to me.

I might say a word as to hypochondria to which Dr. Dewey alludes. I was taught that hypochondria was a pure psychosis, that its first stage was wholly imaginary, that later stages were organic changes in the accused part. But having one or two patients who died of pure hypochondria I am very reluctant to make the diagnosis. I think that cases of so-called hypochondria always have some physical basis which cannot be discovered, but it does not follow that because we do not find it, that it is not there. In other words I believe that what is called hypochondria is only the early stage of many disorders which are organic or functional in character. The symptoms may persist, however. I believe, after the cause has disappeared after the manner of after-images. I have thought it likely that many of these conditions were tubercular in character.

THE OPEN-AIR TREATMENT OF PNEUMONIA.*

BY ARTHUR J. PATEK, A. B., M. D.,

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In 1904 (*Medical News,* April 30) W. P. Northrup of New York, in a paper entitled "Treatment of Broncho-Pneumonia in Children," made a strong plea for the open-air treatment of pneumonia. He followed up this original communication with several other articles (*Medical Record,* Feb. 18, 1905; *Boston Medical and Surgical Journal,* Feb. 22, 1906), and delivered himself again of the same subject at the last meeting of the American Medical Association (*Journal A. M. A.,* Oct. 13, 1906). His views, as expressed in his first paper, based as they are, upon an experience covering a period of about 11 years—have suffered no change, and his conviction that the treatment advocated was not only beneficial to the patient but made the illness more easily endured, was as firm as ever. Little wonder that even at this meeting incredulity was still manifest, an incredulity born partly of ignorance of the results achieved, in part of an unwillingness to yield up other tried though not always true methods of treatment; perhaps some scepticism was born of the reluctancy with which physicians are wont to view the conclusions of others whose logic is based upon *post hoc propter hoc* arguments. It is but fair to say that, with the sole exception of H. S. Anders, no other clinicians have (to my knowledge) recorded experiences with this mode of treatment, and for this reason the stimulus for an extended trial has hardly been sufficiently given.

There is but little to say with reference to the philosophy of the open-air treatment of pneumonia. While Northrup's experience covers, in the main, cases of broncho-pneumonia in children, its applicability in other forms of pneumonia and in adults is also apparent. That cold, externally applied, is a respiratory stimulant, is acknowledged, and every intensification of the breathing effort means the absorption of an increased amount of oxygen-laden air. Inasmuch as in all pneumonias the air-containing capacity of the lungs is much reduced, it will not be questioned that it must be the aim of therapeusis to provide for the greatest possible oxygenation of the blood that bathes the still functionating part of the lungs. To those healthy persons who, mindful of the exhileration they have felt when enjoying the play of cool air about the face, have experienced the discomfort and oppression incident to sleeping in stuffy and warm apartments, the

*Read before the Milwaukee Medical Society, December 11, 1907.

logic of this treatment will not appeal in vain. If the essentiality of cool air to comfort is experienced by those whose lungs still have the normal functionating capacity, then how much greater is its need to those whose fresh air supply is greatly reduced by an exudate-laden lung?

This, in a nutshell, is the common sense theory from which the treatment has been evolved, and its success has proven its correctness.

The open-air treatment of tuberculosis, now so well established on a practical basis, allows the inference that cold air is not a harmful agent. In no case of pneumonia observed by Northrup or by Anders (*Med. Record*, July 7, 1906), have any results other than of a beneficial nature been noted. Northrup cites an instance happening in Civil War times: The exposure to which the overtired soldiers had been subjected and a fierce snowstorm, occasioned a large number of pneumonias in the ranks. The pneumonia hospital had just been totally destroyed by fire, and the country at large felt great alarm because these unfortunate soldiers—lying in the snow—were surely doomed to succumb. Their only shelter was a canvas stretched over barrels. All recovered.

An essential feature of the treatment is watchfulness on the part of the attendants in securing and maintaining satisfactory warmth of the entire body. In the care of infants, hot water bottles are always to be placed at the feet. The degree of cold is of little consequence, in fact, the lower the temperature, the happier the result. Northrup is impressed with the fact that the increased oxygen alone is not the only factor, but that the cold, fresh, circulating pure air is an important agent in furthering the patient's comfort, his ability to resist the infection, and in hastening the return to health. Other approved measures are not to be neglected, such as the general hygiene, diet, proper bowel function, the avoidance or control of flatus, and cardiac stimulation, if necessary. However, less medicine and fewer stimulants are needed, or, if needed, their service is demanded during a briefer period than is required in the average case differently treated. A skillful nurse can attend to the patient's bowel and bladder functions without subjecting him to exposure. It is, of course, not essential that the patient be in the open air or in a room with a very low temperature during the entire day and night, and thus there is nothing in the treatment that precludes a possibility of giving sponge baths—in fact, water externally applied, is of much value. The cases that show the greatest degree of benefit from exposure in a cold atmosphere are those in which the toxemia is very great. The patient's greater comfort is served as by no other means at our disposal, the delirium

is lessened, the fever reduced, the cyanosis yields to a better color, the cough is less distressing, and the strength and appetite are increased. The respirations become deeper, less frequent and less labored, and this stimulation of respiration—by facilitating the pulmonary circulation —brings relief to the overburdened heart, and thus is the most important indication in the treatment of pneumonia met.

It is an experience common to most of us, that when first introduced to a patient suffering from a high fever, and particularly one in whose case the solicitous relatives fear some pulmonary trouble, we are ushered into a room from which fresh air is rigidly barred, and with some pride is it pointed out to us that every precaution against further "taking cold" has been taken by the thoughtful and experienced attendant. The patient is already suffering from the distressing and dangerous effects of the cold, and any careless act that would give access to the sick bed of another breath of death-dealing, germ-bearing, unheated air, would savor of unpardonable criminal negligence. Fresh air in dwellings is unknown to so many in times of good health that it were folly to demand that its acquaintance be first sought during illness.

Happily, the widespread movement for the fresh air treatment of tuberculosis, will doubtless facilitate appreciation of the argument that fresh air—and I mean by this pure air—is innocuous at any and all times, and this may lessen our labor in attempting to convince parents and attendants in general that the radical step proposed as an essential part of the treatment of a pneumonia, is a life-giving, not a life-taking measure.

The excellent reasoning displayed by Northrup in his first communication impressed me forcibly, and it was not long after that I had the first occasion to put his teaching into practice. I desire to briefly detail the histories of three cases in which this treatment was employed; in two of these I am inclined to attribute to nothing else so great a share of responsibility for their recovery.

CASE 1.—A 10-month old male child, seen in consultation . I found the little patient, who was suffering from broncho-pneumonia following whooping cough, swathed in cotton, covered with numerous blankets, close to a parlor stove that gave forth much warmth and deprived him of all the fresh air that may have entered the room. The little child was very cyanotic, its respirations were panting, between 60 and 80 per minute, pulse hardly perceptible, temperature in the neighborhood of 104°. It was in a stuporous condition, and it were hardly stretching a point to declare that it seemed moribund. You who so well know this picture and have learned to fear it, are aware

of the relative hopelessness of such a situation. The parents were apprised of a probable fatal outcome, and were prepared for it. This was during the spring of the year, and cold air was still procurable. I suggested air, fresh air, and lots of it; also an increase of digitalis. The physician in attendance, as well as the nurse, showed a ready willingness to carry out the suggestion. The child was moved into an adjoining room in which there was no stove, and fresh air was administered in great abundance. The nurse was gowned in a coat, and frequently went into the stove-heated room to get warm. Although it was agreed that I would in all probability be asked to see the child again on the following day, no such request came, and I feared the child had passed away during the night. But the child did not pass away, improvement set in early, the stupor lessened, food was soon taken in small quantities, and in two days the condition was such as to inspire great hopes that it would recover. And recover it did very rapidly.

CASE 2.—Also an infant, 7 months old, a robust child in whose previous history there was nothing of moment, bearing upon its condition. This child was attended at the Children's Hospital in February, 1906. Upon my first visit at evening, the nurses greeted me with the greatest alarm. The child's condition truly warranted their fears, for its breathing was exceedingly labored and shallow, 60 to 80 per minute, pulse extremely weak, 160 per minute, cyanosis very intense, and great fear was entertained lest the child die before morning. This was on the fifth day after admission and during these days its fever ranged between 104 and 105 degrees. Prolonged cold packs had failed to influence the temperature materially. The entire right lobe and the apex of the left were consolidated with pneumonic inflammation. The room in which the patient had been lodged was devoid of air fit to breathe—surely not fit for a body whose entire oxygen supply had to be furnished through the agency of two-thirds of one lung. Orders were at once given to check the heat supply to the room, and to open the window. The room remained at a temperature of about 50 degrees. Whiskey and digitalis were administered internally. During the first night the nurses noticed a change in the child's appearance, and this was accentuated at my visit the following morning. The temperature had not reduced, nor did it drop until three days later, but the baby's general appearance indicated much greater repose and comfort, its color had undergone a marked improvement, and the respirations—while still labored—were softer and less audible. On the seventh day of fever, the crisis set in, but after a remission of two days, the temperature again rose, and another attack, as acute as the

first, ensued. This was treated as before. The child was well bundled in blankets, hot water bottles placed at its feet, its face exposed, a woolen cap on its head. During the relapse the cyanosis at no time reached the degree of the first attack, nor did the child suffer the same distress in breathing. While prior to the introduction of the cold air the child was cold packed for periods varying from one-half to one and one-half hours with a resultant reduction in temperature of ½ to 2 degrees, the same result was accomplished later in from 10 to 15 minutes, without the exhaustion incident to the prolonged exposure. Recovery was perfect. At one time while these cold air cruelties were being practiced, some visiting ladies of the hospital board inspected the institution, but were very adroitly guided by this frigid room lest they view the treatment employed in the light of malpractice. I regret now that the matron saw fit to exercise this caution, because—once the lesson is learned by the laity that cold fresh air is innocuous—it will be easier to pursue the course one's judgment dictates as right. In this case, the change in treatment was so quickly responded to, that the nurses give full credit of the child's recovery to the cold air treatment instituted, and in this opinion I heartily concur.*

CASE 3 was that of a man aged 22, whom I attended at the Emergency Hospital. I was called to see him on February 25, 1906, at noon. He had been ill four days. Consolidation began at the left base, extended to the upper lobe, and during the previous day severe pleuritic pains had set in. The usual signs of pneumonic consolidation were present, with indications of a small amount of fluid. His breathing was short and jerky, 38 per minute, pulse 130, temperature 103⅜°. Cyanosis was very marked. His condition was alarming. He was immediately transferred from the ward in which the temperature was over 70 degrees, to a private room. All heat was turned off, and the window opened wide. On the following morning the head nurse informed me that the change "worked like a charm"; that if for any reason the window was closed for a short time, the patient became restless and unhappy, and awaiting its reopening with much impatience. His face soon lost its cyanosis, and although his breathing remained labored and rapid, inasmuch as much fluid had accumulated and the heart was encroached upon, his sufferings were far less marked

*A similarly good result followed in a most desperate case of pneumonia complicating diphtheria in an infant, recently seen several times in consultation. The parents and nurse who reluctantly but conscientiously obeyed the attending physician's directions, are firmly convinced of the efficiency of the treatment in this case.

than previously. This patient ultimately developed pericarditis and empyema, underwent an operation, and died. I wish to emphasize, however, the great increased comfort he experienced when the air was crisp and cold and he was permitted to inhale it *ad libitum*.

Two other children, one suffering from acute bronchitis, the other a case of broncho-pneumonia, were treated in this manner, but in neither were the symptoms at any time alarming, and I refrain from ascribing to the treatment any great share of credit for their recovery.

Northrup has given such a happy summary of the treatment of broncho-pneumonia in the infant, that I desire to quote him in full:

"How to cure a baby with broncho-pneumonia.

1. Castor oil to clear the field of operation. It is the first aid to the injured.

2. Fresh air, cool and flowing. It reddens the blood, stimulates the heart, improves digestion, quiets restlessness, aids against toxemia. Regulate the temperature of the air in the room inversely to that of the child. The patient's feet must always be warm, and head cool.

3. Water, plenty inside and outside. Temperature of the water as indicated by child's temperature.

4. Quiet and rest. Tranquilizing influences about patient. Undisturbed sleep.

5. Correct the feedings to prevent fermentation and the formation of gas in the abdomen. If there is need, give high hot salines.

6. Antipyretic: Water; no coal-tar products.

7. Heart stimulants: Fresh air, hot foot baths, relieving tympanites and crowding. Hot foot baths and hot salines can be given in a cold room; both can be given under the bedchothes.

8. Drugs: Whiskey and strychnine. These are the first drugs mentioned, unless that household remedy, castor oil, be included. Promote general comfort in every rational way.

How to Kill a Baby with Pneumonia. Crib in far corner of room with canopy over it. Steam kettle; gas stove (leaky tubing); room at 80° F. Many gas jets burning. Friends in the room, also the pug dog. Chest tightly enveloped in waistcoat poultice. If child's temperature is 105° F. make a poultice thick, hot and tight. Blanket the windows, shut the doors. If these do not do it, give coal-tar antipyretics and wait."

The use of fresh, cool air (when it is in season) is not limited to its employment in pneumonia, but will, I believe, prove of the greatest benefit in all acute infections. Apropos of this I wish to briefly mention the case of a patient whom I have had under my care—at the Milwaukee Hospital— during the past six weeks, a boy suffering from typhoid fever. Upon admission, his temperature hovered about 104° F., pulse was weak, tympanites present; he was unresponsive, dull, delirious at times, and had urinary and fecal incontinence. Soon after

admission I arranged for his removal from the ward to a small private room having two large windows, one of which was always open. The temperature here ranged from 48 to 60° F. Here he remained about four weeks. As you will notice on this chart, the temperature curve is a fairly normal one. It is interesting for two reasons: the patient's semi-stuporous condition, indicating a rather profound toxemia, persisted about two and one-half weeks, and during practically all this time the pulse was strong and needed scarcely any stimulation whatever; and secondly the temperature was lower than experience with this disease would lead one to expect in the presence of so disturbed a mental condition. I am not prepared to say how much influence the cool air exerted, but incline to the belief that it bore some causal relation to the rather favorable showing.

The authorities of the New York Presbyterian Hospital, in which institution most of Northrup's work has been done, are so thoroughly convinced of the excellence of this treatment that a colossal roof garden has been built for the open-air treatment, not only of pneumonia patients, but of those suffering from other infectious diseases as well. Case 2 was the first treated in this manner at the Milwaukee Children's Hospital. It is significant of the prevailing sentiment, however, that arrangements are now under way to make provision for the treatment of pneumonia and other infectious conditions—medical and surgical—on the roof of a large well situated veranda.

That the open-air treatment of pneumonia, so ardently advocated by Northrup, but not yet adopted by many others, is destined to supercede other methods now in vogue, I cannot for one moment doubt. True, we will eventually have an anti-toxic specific serum that will abbreviate the disease, but its use will not in any way be antagonistic to the employment of another agency that will prove an excellent ally, its best ally, in fact, in combating the infections.

THOSE WHO MAY BE CLASSIFIED AS FEEBLE MINDED.

BY ALFRED W. WILMARTH, M. D.,

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CHIPPEWA FALLS, WIS.

If the term "Feeble Minded" was confined alone to the group of idiots, in their mental and often physical weakness and infirmity, I should have no excuse for taking your time for this paper. But it is not. The term "Feeble Minded," has a broader meaning, and

the care of this class affects so large a number, and touches so many social problems, that their care is not a pure charity towards the unfortunate, but a safeguard over the moral health of the community, and a preventative of a rapid increase in crime, poverty and suffering. So I believe it is wise for the physician, in whose hands the future of the feeble minded has been virtually placed, to study not only the immediate need of this class, but the remote, but wide, effects of neglect of their proper care.

The feeble minded are members of, and closely associated with others of a large group which might be classed as mentally incompetent. Not only imbecility, but insanity and epilepsy, are simply the effects of a primary fault in the brain, and the form in which this fault shows itself depends on the age at which it becomes evident, and the location and nature of the primary defect. Any form may be transmitted to offspring in either of the other varieties of mental weakness or instability, or in two of them combined. Or, by one of those obscure phenomena of transmission, it may pass over a son to appear in increased violence in the grandchildren..

As we go from a mind of average development through various grades of eccentricity to true insanity, with no absolute dividing line for our guidance, so we go through the grades of incompetence for self-provision and self-development, which are apparent in the tramp, the prostitute, and the habitual criminal, to the imbecile proper.

Fifty years of study, with thousands upon thousands of cases, has brought the conclusion that inherent mental weakness is the evidence of a permanent defect, and is beyond entire removal.

Today, no one but those entirely inexperienced, claims to "cure" imbecility.

The skull has been opened, portions of brain removed; eye strain has been remedied, the shape of the palate gravely and thoroughly studied, adenoids removed, and portions of the body, remote from the brain, removed or modified, and "progress reported"; but on looking into the cases carefully, it is doubtful if any claim of recovery from mental weakness from such measures is justified in those actually feeble minded.

Some institutions have taken their most promising cases, spent much time and care on their development, and launched them in their struggle with our present social conditions. There has been no encouraging success. The educated imbecile is like a knife blade I once saw made of iron by a skilled workman. In appearance it was perfect, but put against material which a good knife would cut, it was found wanting. So the trained imbecile will do well if you select his work

and surroundings, but becomes a failure in times of stress which come in all lives.

Of the extent and cost of the incompetent classes, few have any appreciation. Take one state for example, Pennsylvania. I choose this for no other reason than that a very large proportion of the expense of maintenance of defectives is borne directly by the state, or is spent under state supervision.

The expense of Charitable work which came under the supervision of the State Board of Charities in Pennsylvania, during the year covered by their last annual report, was over seventeen millions of dollars ($17,424,692.60).

About five and one-half millions were spent for hospitals and institutions given to the care of the sick and injured, such as City Hospitals, and the like, money, well spent in restoring to their work those temporarily disabled.

Nearly six and one-half millions were spent for alms houses, out door relief and kindred work; leaving over five millions for institutions devoted to the care of defective persons, immediately under state care.

Between eleven and twelve millions of dollars were spent, and justifiably spent, in caring for classes, the large majority of whose members were to be life long charges, and every year will take from the pockets of the more competent, this vast sum to be spent for their support. Multiply this by the sum spent by all the States, and add those donated by private charity, and think of the enormous total, with its tax on the income of the workers of our land.

And it is an increasing burden: increasing out of proportion with the increase in population. In 1897, Pennsylvania spent only thirteen and one-half millions, although that was in the last period of financial depression.

In New York State, the expenditures of the Board of Charities increased to nearly double in one decade, although the population of the State increased only about 20% in the same time.

The special census reports, recently issued, show that with a general population of sixty-two and one-half millions in 1890, there were 74,000 insane in institutions. An estimated population of eighty and one-half millions in 1903 had 150,000 under such care. So while the population increased 30%, the number under institution care increased 100%.

In this era of preventative medicine it is well to take up the burden that society has assigned us, and look into and use our best

efforts to cut off this cost, financial and moral, and prevent the vast amount of physical suffering their circumstances entail.

If we look closely into this matter, we find, if we follow the history of certain families, generation after generation, with possibly a few exceptions, that they make no call on public charity. If misfortune comes, it is temporary, owing to their own inherent energy and the family pride which makes relatives aid from their own funds. In other families, mental weakness, or, at least lack of mental strength, with its consequent lack of business instinct and saving prudence, runs through the entire line. Some noted examples are on record where a family has been followed through several generations.

The history of the Juke family compiled by Richard Dugdale shows the gathering forces of varied neuroses, by heredity and environment, through more than one hundred years. In this history 1200 persons, descendants from five degenerate sisters, repeat in successive generations the tale of disease, insanity, idiocy and crime, due to reversion to the original type, except when escape was obtained through early death. An exhaustive research into the influence of heredity has been made by Oscar G. McCullock, in the descendants of John Ishmeal. Records, the author claims, are scant up to the fourth generation, although there are reasonable evidences of transmission from the old convict stock which England threw into this Country in the 17th Century. However, from the marriage of that degenerate and diseased man, John Ishmeal, with a half-breed woman, the narrative of facts begins. There is a continuous history covering a period of many years, traced through thirty families, with not less than 5000 degenerates of all sorts and kinds, reduplicated by illicit, consanguineous and incestuous connection.

Add to this, the history of Margaret the mother of criminals, living in the mountainous districts of Northern Pennsylvania, with her seven hundred descendants, comprised mainly of paupers, beggars, and criminals. The girls married young, the family vigor being preserved by marriage with vigorous ruffians, some of the women bearing as many as twenty children. Let me add one more instance of a family record by Prof. Belman of the University of Bonn, which was the offspring of a notorious drunkard who died in 1900. Seven hundred and nine of his eight hundred and thirty-four descendants were traced from their youth. Seven were convicted of murder; seventy-six of other crimes; one hundred forty-two were confirmed beggars; sixty-four lived on charity; one hundred and eighty-one of the women lived disreputable lives. In our own state are some in-

stances which promise a like history for the future, only on a reduced scale.

Habitual immorality is mental degeneracy. Habitual infraction of the rules made by society for the mutual protection of its members, shows either a lack of ability to comprehend the importance of such laws, or a lack of mental control over the animal instincts and desires. Hence a transmitted weakness from generation to generation means a continued practice of what is termed immorality. But why should this class increase at a relatively more rapid rate? Degeneracy tends finally to extinction. So, unfortunately, do the more highly civilized families tend in that direction. Many do not marry, and with the married, families are liable to be small. Not so with those who unite a strong physical nature with not well developed mental characteristics. They yield to impulse or necessity, and marry early, and often, if need be. And if marriage is not convenient, bear children without that formality. One girl under our care had been a mother five times, at the age of twenty-six. Four imbecile women in one of our groups have borne between them five children.

A recent dispatch from London gives the name of John George Stratton, father of thirty-three children, not one of which was able to support him, and, with his last wife, he was ending his days in the almshouse.

I have taken your time to show that the responsibility placed in your hands by the law in deciding the future care of possibly 4000 of this class in the state, together with the 5000 insane, adding such epileptics as are not included in these two classes, is not a light one. Consider further that probably two-thirds of these cases are due to an inherited neurotic temperament, and their marriage with one of their own type means an almost certain transmission and multiplication of their own weakness in their offspring, and you will realize further the need of most careful examination in order to curtail this fault.

There are four simple mental attributes essential to a reasonable mental development. First, the power of attention, wanting to a great extent in most idiots, and liable to be weak in all grades of the feeble minded. Second, memory, governing the reception of impressions brought to the brain through sensory organs, their storage and their reproduction as thought. Third, judgment, governing the estimation of the relative values of memories. Fourth will power, or self control. Insufficiency of either of these four cerebral functions necessarily means mental weakness. It goes without saying that lack of the power of the cerebral cells to recognize impressions, or to retain them,

is inconsistent with a proper mental development. On the other hand, a good memory, especially along certain lines, is not inconsistent with a very evident condition of imbecility. Barr has laid special stress, in his work, on the memory power in the higher grades of imbeciles. Judgment is latest to develop, and tends, in normal people, to increase in activity through life, until senile change occurs. In our higher grade of imbeciles its development is prone to stop at a relatively early age, and they remain life long children. It handicaps their efforts to obtain a livelihood when brought into competition with the average wage earner. It prevents their obtaining an adequate conception of right and wrong.

Will power is the controlling element of the mind. If it cannot absolutely command it, securing concentration of attention, adequate progress is impossible. The mind may have been stored with memories sufficient for its needs; the judgment may be sufficiently developed to distinguish between right and wrong. Many moral imbeciles can recite a list of right things and wrong things, with all the accuracy (and about the same degree of intelligence) as a phonograph. They not only remember these things, but have a fair appreciation of their ethical value, showing the presence of both memory and judgment. They will show what is probably genuine regret for their misdeeds. When, however, their weak will is again summoned to resist these same promptings of their instinct for acquisition, or their animal emotions, it is unequal to the task. This is what distinguishes the moral imbecile from the so-called "bad boy." The will of the latter may be strengthened by precept and discipline until reasonable self-control is acquired, but, with a moral imbecile, discipline produces only temporary effect, and the required self-control is never gained.

The persistence of the willful boy or girl in holding to their wrong practices may be an evidence of mental strength, which properly guided into better channels, may result in their ultimate good. The moral imbecile is rarely willfully persistent. Their apparent sorrow for misdeeds is easily awakened, and is probably generally genuine. Promises to reform are readily obtained, and probably well meant at the time, but all better impressions are superficial, and carry no lasting lesson. They fall again, under the same circumstances, the second and third and many times, as readily as they did the first. While in this, as in all questions determining the mental and moral responsibility of persons, border line cases may come under observation, as a rule, the points I have detailed above should be sufficient to guide the examining physician in his decision.

Objections will be made to the theory of moral imbecility, and

in fact, have been made, but a half century of study has established it as an undeniable fact. Doubts have been cast on the transmission of inability to maintain a correct moral attitude from parents to children. As long ago as the foundation of religion in the rules promulgated by the Deity from Mt. Sinai, as to the duty of each man to himself and his neighbor, the warning was given that the transgression of these laws must result in evil consequences passing from father to son through two and three generations, and thousands of years have proved that this warning contained the very essence of truth, and our offspring would inherit weakness, as well as strength, from the life of their parents.

Watching the growth of a high grade imbecile child, through his physical development into adult years, I have been interested to note how the passion for theft and other vices awakes at the age of thirteen to fifteen years in boys who had primarily manifested no special tendency in that direction.

When a case is in contest, to decide as to whether is shall be regarded as feeble minded or not, on what grounds shall it be decided? Should not the question be the fitness of the subject to meet and deal with the ordinary conditions which surround the individual in the communal life we lead? The conditions are simple. He should be able to maintain himself and those he may have placed dependent on him. He should have sufficient judgment to appreciate the personal and property rights of others, and sufficient will power and self-control to respect them. These are conditions which are readily understood by all, whether familiar with the characteristics of the feeble minded, or not. They are essential points, I believe, in determining the discharge, or retention of the high grade imbecile. They are the points which alone will be weighed by jury, or jurist, when the final decision comes to their hands.

The future of the feeble minded has been given much thought. They are not subjects for punitive treatment. They are the blameless sufferers for their ancestors' weakness.

Sent into society they join the pauper element, or the ranks of petty criminals, or form migratory families, always looking for some location which promises more. As the cow bird drops its eggs in other nests, so these people pass their offspring to other families, generally through the state schools, or asylums conducting a "clearing house" function for this purpose, or in institutions for defectives.

It is the wisest plan that they have their own community with only such restraint as is necessary to curb their roving instincts and tendencies to petty crimes. Such restraint as you would put over your

own immature son, or daughter, is sufficient for these children during their prolonged childhood. Here, nearly 100% will be happy and contended, and the small balance remaining absolutely require care and oversight.

Such a course will meet opposition. First, from relatives who see an opportunity to profit by the children's labor. Then again by parents who may have given many defective children to the public to support, and who have not intelligence to see why their children should not enjoy the same license.

Also by those who after a minute's conversation, or sometimes, by a glance, will tell you, with a confidence that only absolute ignorance of this subject can inspire, that you are mistaken in the opinion you have gained through careful and prolonged examination.

And lastly, and it is a credit to our community to say very rarely, by the man in political life who may gain something by the release.

I have faith to believe that our profession will attack this, as they do other problems which threaten the physical and moral welfare of the public, and irrespective of interested or poorly informed opposition, lend their aid to the curtailment of this evil by every just and legitimate measure.

CONCERNING ENDOMETRITIS*.

BY J. M. EVANS, M. D.,

EVANSVILLE, WIS.

As the title implies, this is not an exhaustive treatise, but embodies simply a few rambling remarks, for in this way only may one say what one pleases and shirk responsibility for points left out.

I am well aware of the controversy existing over this term, some wishing to entirely ignore it, placing the category of symptoms under the broad subject of inflammatory conditions of the whole uterus. But I believe that the consensus of opinion today gives it a place as a distinct affection.

I have chosen this subject to bring before this learned body simply because, to me, it is a very interesting and common one. That is, I group under this term a certain set of symptoms combined with clinical and microscopical findings, either acute or chronic, more often the latter. Those cases complicated with cystic ovaries and pus tubes will not be considered, because here the endometritis is naturally relegated to the back ground, and the treatment is radically different.

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Patients suffering from endometritis enjoy a fair degree of health long after the disease is recognized, many of them doing their own house work. But the disease will gradually undermine their health, and if untreated will eventually make them drag out a miserable existence. They do not require major surgery, nor will medicine alone meet their needs; on account of comparative lack of suffering in the beginning they are not willing and many of them cannot afford to lay up for long periods of time. I have given this class of cases much study in an effort to determine what is best to do.

In looking up the literature of the history of endometritis, I have been disappointed in not being able to find anything in the English language bearing directly upon it. Up to 1898 it was considered very rare, according to H. A. Kelly. Only one in fifty cases that came to the clinics as such, was really endometritis.

The causes of endometritis are many, but I think that two will practically cover the field: Infection, and disturbed circulation, or a combination of the two. The endometrium may become involved in any of the infectious diseases, from simple catarrh to the severe forms of systemic poisoning. In regard to circulatory disturbances, a cold may lock up the general excretions of the body, especially the glands draining the genital tract. As causes may be cited: injury or irritation to the part; subinvolution after pregnancy, more apt to come in non-nursing women after confinement, with a lacerated perineum unrepaired, this throwing more of the uterine support on the ligaments causing them to stretch and the organ in consequence falling; or it frequently comes in unmarried women who are compelled to work for a living and do not understand how to take care of themselves; teachers standing steadily and too long in one position; girls behind counters continually reaching for goods on high shelves; sewing girls running machines with foot power, and the like.

Probably the first symptoms are due to ignorance in living. I believe carelessness in regard to movements of bowels and kidneys a very important factor. Many an endometritis has its origin in constipation. Constipation and a general locking up of the lymphatic system brought on by bad living, supplemented by confining work, will reduce the entire system below par, and the endometrium becoming sympathetically congested through the stagnation of the pelvic contents, with or without a cold as the inciting cause, increases the weight of the uterus, which, pulling on already weakened ligaments, begins to sink in the pelvis. As it drops lower and lower, the veins are kinked, thus lessening their caliber and greatly retarding circulation, while the arterial blood going to the organ in stiff open tubes is in no way interfered

with. Thus we have an extra amount of blood continually bathing the parts, and it is bound to do mischief. This it does in one way by still further hypertrophying the endometrium. Finally, the outer layers of this mucous membrane break down and we get a discharge, catarrhal at first, then becoming purulent, and a typical case of endometritis results.

The symptoms depend on the stage of the disease, whether acute or chronic, and the complications. But in the general run of cases, the following complaints are recorded: Backache, headache (top and back), inframammary pain, bearing down across lower part in abdomen, exhaustion when standing, relieved when lying down, vaginal dicharge white or yellow, with or without blood or odor, indigestion, constipation with its accompanying frontal headache, and irritability of the bladder. Some of these may be present only at the menstrual period, but all the symptoms complained of are aggravated at that time, and finally clots and membranes are passed with the menstrual flow.

From the symptoms just enumerated the diagnosis ought to be fairly easy in the second and third stages, but in any case an examination may be necessary to confirm it. A woman may have this trouble a long time without knowing that there is anything especially at fault. She realizes that she tires more easily than formerly, is getting cross and irritable, has backache and possibly headaches frequently, and begins to dread her periods, but all this she lays to a cold or hard work; she looks for early improvement, and does nothing, to control the condition, except to employ some home treatment.

This disease creeps so insidiously without the patient's realizing her condition, because of the fact, I think, that the connection between the general and the genital systems is so largely through the sympathetic. The early period when so much can be done for the patient by advice and possibly a little medicine, slips gradually by. The gradual appreciation of her condition causes her to seek help. Now by careful questioning, we bring out some or all of the above symptoms. While they vary in each case, they are in the main fairly constant. Many of these symptoms also belong to hysteria, neurasthenia, prolapsus of abdominal viscera, wasting diseases, and the like, and one must not forget that more than one disease can exist at the same time. So the next step, except in the case of young girls, must be a thorough examination including that of the excretions. Upon examining we find a heavy, dropped uterus, but not tender. It may be tipped backwards, in which case some of the symptoms will be exaggerated, cervix congested with or without erosion of the os; generally there is evidence of a discharge which in some cases lights up the whole vaginal tract,

perhaps four inches long, with a very tender spot at or about the internal os; blood may follow the withdrawal of the sound, one may also find polypi. The pathology of simple endometritis is only that of an inflamed mucous membrane, but the complications of diseased organs, tissues and conditions that so frequently go with this trouble make it much more complex.

With appropriate treatment, the prognosis—in all cases in which the adnexa are not involved—is good, but just as sure as the old way of living is resumed, there will be a relapse, and here the financial status of the patient is an important factor.

As to treatment. Prophylaxis stands prominently in the foreground and in this we ought to have the ready help of the mothers of our present generation of girls, who would be anxious to guide their own daughters around the troubles they themselves have had to wade through.

The general rules for health need not be dwelt on here, but I would especially urge that our growing girls be given something to do, either in the way of work or exercise, that will make and keep their abdominal muscles firm, hard, and strong. Those of my pregnant patients whom I can induce to exercise out of doors during the greater part of each day, show excellent results at their time of confinement, and in their recuperative powers afterward. The general treatment consists in getting each organ into as nearly a normal condition as possible so that it can easily do its full quota of work. This is very much more easily said than done. Here tonics are indicated, but they will do little good if the digestive tract is badly blocked.

As regards local treatment which is essential in all cases, except the most recent, we can now obtain direct observable results. In the simple acute cases, especially in the younger women when seen early, complete rest in bed with heat or ice over pelvis may be advised; if heat is used it may be supplemented if need be with hot injections and hip baths, and thorough elimination. This continued long enough will cure the great majority of cases. In the more intractable ones, and those following labor or abortion, the uterus must first be as completely emptied as possible, then the same treatment is followed out with perhaps the addition of antiseptics; and glycerine tampons to aid the involution. But the chronic cases that are able to come to our office, are the kind we meet most frequently, and from these you get a lot of symptoms that might lead one to believe that every organ in the body is diseased, and perhaps most of them are as they yield one by one to contiguity or sympathy. These are the patients who are doing their own work, whether able or not. They would not give their consent to

have the organs removed, even if advised to do so, and it would inflict a great hardship were they to be laid up for any great length of time, for of course the majority of our patients are poor. While in the rich the treatment would be the same in the beginning, they can, if they will and are made to understand the conditions, so take care of themselves as to avoid relapses. Numerous methods are advised, all with the idea of eliminating the congestion, reducing the size of the organ and restoring tone to the parts. Steam, which is rarely used, is not a safe procedure.

Curetting, used so extensively at one time, and by which a great deal of damage was undoubtedly done, is now gradually assuming its proper place. The numerous external applications, including baths and injections, are good in their way, and harm is not so apt to follow their use. Intra-uterine applications of nitric acid, carbolic acid and even copper sulphate and iodin, should be used only by one who is competent, as contractures and cicatrices are easily formed rendering the last state worse than the original.

In my own work, if the patient is a young girl, I give advice and medicine if needed, with the object of getting all of the organs in as nearly a normal condition as possible, and increasing the elimination. In the other cases, a general examination is first made to determine which organs are abnormal and if their condition is separate from or dependent directly upon the genital trouble. If lacerations of any extent are found, they can be repaired now or later on, as seems best. If the mucous membrane is especially thick, a curettage is done first, with or without anesthesia and with the usual antiseptic precautions, not intending to go into the muscular tissue, but simply to cut away the rotten mucous membrane. The condition of the organ decides the advisability of using electrolysis or mercuric cataphoresis. If the former, a plain zinc electrode is inserted into the canal and a large indifferent pad placed on the body. A current strength of from ten to fifty milliamperes with the acting pole negative, will show results in a short time, as the bubbles of hydrogen gas push their way out through the moisture, the electrode becoming looser and looser in its position, and a free drainage established. In applying mercuric cataphoresis the zinc electrode is amalgated with mercury, the current reversed and the strength either increased or the time prolonged. This treatment is used more for its straight alterative effect. After either treatment the electrode is withdrawn, the canal wiped out and a solution of iodin and glycerine applied, the latter principally for its antiseptic effect, as I do not like to leave raw surfaces to become infected later. I now place two large pads, one on each side of the pelvis, and connect the

circuit, sometimes using the long fine wire with rapid interruptions of the induced current, but generally the straight galvanic. In this way all shock and irritation from treatment can be overcome and a wonderful amount of sedation and tone obtained. I also tell the patients that if they want the full effect of the treatment to go home and lie down half a day. Once in a while the bladder becomes so irritated that it is necessary to wash it and inject some soothing remedy. When the abdomen is large and flabby, I advise an abdominal supporter, one whose lower edge fits snugly and presses in and up, and if the uterus is extra heavy, a cup and stem pessary held up by rubber cords attached to this. In this way one part is not sustained at the expense of another, and if properly applied will be very comfortable. I tell patients to wear this when on their feet working; at other times of the day and at night to leave it off. Later when the uterus has been reduced in weight, and if the ligaments do not regain their tone, an operation can be performed.

As proof that the treatment is effective, I may say that a number of my patients who had not born children for four or five years, became pregnant after a few treatments, some of them to my surprise. When this happens, all local work must, of course, be stopped, and if the patient can take the proper care of herself, it may never have to be resumed. In ordinary cases the uterus will recover from the shock and be ready for another treatment in four or five days. But the amount of work required, depends on two important factors, one of which is very uncertain—that is the constitution of the patient and the severity of the local attack.

Discussion.

DR. L. F. BENNETT of Beloit: What I have to say will be simply impromptu, as I had no opportunity to prepare anything on this subject. As I heard Dr. Evans' paper it brought to my mind an interesting class of cases which we all have, and sometimes hardly know what to do with. As he has mentioned, many of these patients are poor, and it is oftentimes impossible to give them proper operative treatment. These cases are for that reason often neglected.

As the doctor has said, there is very little benefit resulting from local treatment. These cases come into the office day after day, and month after month, as they have often done in the past, receiving a little local treatment with very little attention to their general condition and to the conditions lying back of it, and all this does very little good.

Operative treatment is often required, and this should be done with a great deal of care.

A curetment should not be done unless the pelvic organs, including the tubes and ovaries, are carefully inspected, as a curetment in these conditions, overlooking an infected tube or ovary, brings disastrous results, as all have seen in the secondary operations which are required—hysterectomy and ovariotomy being often required as a result of improper curetment.

The general condition of these cases should be carefully looked into. The food supply is very important and we often overlook this point of improper or inadequate food supply. Perhaps too much starchy and fatty foods are taken to the neglect of the albuminoids. The muscular system of these patients is often sadly neglected. Taking that in connection with insufficient exercise these patients are often weak and anemic. As the doctor mentioned, the exercise of the abdominal muscles, bringing them into vigorous action in some way, so as to improve the general strength of these patients, is most important in their treatment; and as he has also said, in regard to the bowels, constipation is a most important condition to be overcome. I wish to emphasize that. Pelvic congestion resulting from fecal impaction is most important and should always be remedied. Taking that in connection with local treatment, perhaps of a mild character, the patients will usually get along very nicely.

But in regard to the operative treatment I just want to say a word more. If operative treatment is necessary you must look out for the curetment; you can often repair the perineum with a great deal of safety; but be extremely careful in regard to infected tubes and ovaries.

MEMBRANOUS COLITIS, CHRONIC COLITIS, MUCUS OR MUCO-MEMBRANOUS COLITIS AND DESQUAMATING COLO-PROCTITIS.*

BY LAWRENCE HOPKINSON, M. D.

MILWAUKEE.

Boas defines Membranous Colitis as a catarrh of the large intestines characterized by: 1. Peculiar mucus formation, 2. Anomalies of intestinal function, 3. Painful spasm of the intestines—we may add, of a more or less periodic nature.

The time allotted for a paper is not sufficient for a thorough study and exposition of this little understood condition, but I would like to arouse the interest of both the general practitioner and surgeon in this class of cases, as many of the patients afflicted are in a most deplorable condition, often wandering from one doctor to another, unfortunately without any benefit.

ETIOLOGY. The etiological factors concerned in the production of membranous colitis have been the subject of considerable conjecture and discussion. Da Costa is credited with the first classical description of the disease, he claiming that it was of a nervous origin; later many Germans put forth the theory of a myoangioneurosis of

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the intestines with hypersecretion of mucus. More recently the theory which may be termed anatomico-pathologic (extrinsic and intrinsic) has been advanced which seems to me to be more rational and promises better results therapeutically. The claim of a neurosis is not maintained, as repeated investigations amongst the insane had proven that it is not more frequent among them than with the average patient. It would seem, according to a case reported by Thomson (*N. Y. Medical Journal*), that the nervous symptoms were consequent thereto; and there is no question, as I have repeatedly found by careful history taking in some of my own cases, that this is often the case.

With regard to the myoangioneurotic phase of the malady, that can also be explained when the anatomic factors are more carefully taken into consideration. The chief intrinsic cause is that of constipation (chronic). At this point we must not so often take for granted the mere expression—chronic constipation. It is essential for us to find the cause of that individual case of constipation. These mechanical causes may be grouped under what may be called anatomico-pathologic factors. They are: inflammatory adhesion of the pelvic colon to the pelvic organs or walls; adhesion around the gall bladder area; and adhesion from inflammation of the appendix in various directions. Floating kidney, either right or left, possibly due either to the constant irritation of the colon, or, what seems to me more likely, to the increasing of the normal hepatic and splenic flexures by dragging down, may also figure as a factor. Tuttle reports six cases of aneurism of the abdominal aorta on a level of the transverse colon producing this condition. As to how these adhesive bands and movable mass irritations produce changes in the gut and consequent peculiar symptoms, is a matter of much speculation, Tuttle advancing the idea that the process is that of repeated attacks of partial intussusception.

As this condition is more or less localized, in contra-distinction to chronic hypertrophic catarrhal colitis, it has occurred to me that it may be, at least partially, due to a break in the normal peristaltic wave; the area involved being more or less stagnant and subject to chronic venous congestion, increases and retains mucus secretion until it becomes and acts as a foreign body, necessitating more violent expulsive efforts over and through the debilitated area. To be more explicit suppose in the course of an attack of appendicitis, that organ becomes adherent to the pelvic colon (sigmoid flexure). During the course of the normal elevation at the periodic descent of the fecal mass, the fixed adherent appendix and band will exaggerate the nor-

mal flexion, break the muscular wave, retard the fecal mass, produce a venous congestion and a consequent increased mucous secretion without the chance of moving that excessive secretion before the watery contents are partially absorbed. You can clearly see that we have all the conditions necessary for the production of a characteristic attack of membranous colitis. The same procedure may and does take place when the gall bladder becomes adherent to the transverse colon, or, as in one of my recent cases where a band of the omentum crossed over the colon and became adherent to the gall bladder. It is essential to note that this condition is produced by narrow bands rather than broad ones, more by flexing and retaining, and that there is a predilection for those areas where the colon changes from a fixed to a freely movable tube.

Howard Kelly lays down the rule that "When the intestines are widely adherent, without the displacement of any of the loops, operative interference is not always necessary, the patient will often show that she has not suffered from intestinal cramp or obstruction. On the contrary, when one or more loops are caught and detained in a vicious position such symptoms will result."

PATHOLOGY. As this is not a fatal disease very little has been learned as to the pathological changes; by the aid of the pneumatic proctoscope those occurring in the rectum and pelvic colon are somewhat better understood. The membranes are flake or tape-like or tubular, representing the caliber of the tube in which they are formed; are of varying length (may be two or three feet long) and are composed of laminated albuminous material, structureless and devoid of fibers, having in its meshes varying amounts of the normal contents of the intestinal canal. The shreds are from very thin flakes to ¼ inch in thickness, with adherent glairy mucus, and they chiefly represent a hyaline body chemically proven to be mucin; the muscular walls generally are thin and atrophied and occasionally contracted; the veins are dilated with slight excoriation of mucus membrane, but no ulcerations; and simulate hypertrophic colitis. Through the proctoscope it is found that at all times flakes may be seen irrespective of the time of the periodic attacks. I have seen what Professor Gant recently reported—flakes of membrane above and adherent to the valves of Houston and stretching across the gut like a window. The membrane is rarely found post-mortem, so it is probably not retained for a great length of time. The mucus membrane is red, congested, and not grey as in hypertrophic catarrhal proctitis.

SYMPTOMS. The disease is chronic, often extending over years,

occurring usually between the ages of twenty and fifty years. General symptoms are those of chronic intestinal indigestion, flatulence, capricious appetite, and between the attacks of colic the patient may feel exceedingly well. As the disease progresses, melancholia and mental depression commonly develop. In some cases very marked constipation is the rule, but there may be alternating constipation and diarrhea. Patients are usually sensitive to cold, particularly in the abdomen.

THE ATTACKS. Patient complains of increasing constipation, lack of appetite, flatulence, sense of weakness followed by griping abdominal pains; after hours or days a mass of membrane or mucus is discharged from the bowels, the griping ceases, but the soreness remains for some time afterwards, the discharge being rarely mixed with blood and pus. These attacks are followed by marked weakness, sometimes even collapse. They may be separated by long periods of time, but gradually become more frequent, the nervous symptoms increase, the patient being profoundly impressed by the gravity of his condition. When the lesions are in the pelvis there will be many symptoms that are mistakenly attributed to the genito-urinary tracts. The kind and location of pain will depend largely upon the part involved; the higher in the gut, the pain will be reflected from the splanchnic areas to the somatic areas of the lower intercostals and lumbar plexus, whilst those in the pelvis are more likely to be reflected along the course of the internal pudic and the cutaneous regions supplied by the sacral plexus.

DIFFERENTIAL DIAGNOSIS. As many of the etiological factors (in a mild degree) are the cause of hyperthophic catarrhal colitis care must be exercised in differentiation. Membranous colitis is more localized, has not the constant discharge of mucus, but has the massing and periodic discharge. In those rare cases of diphtheritic and erysipelatous infection of the large intestines, the membrane formed and discharged is organized, cellular, and not as in membranous colitis, homogeneous. The general symptoms are also markedly different. In the later stages of chronic Bright's disease and diabetes there is often necrosis of areas of the mucous membrane of the bowel with discharge from time to time of these masses; but microscopic examination of them and inspection of the gut will show their nature. Unlike membranous colitis with reddened but intact mucous membrane, their removal will leave ulceration and destruction of the inner wall of gut.

TREATMENT. The fact that the treatment directed with the idea

that it was due to a neurosis, has invariably failed, does not mean that we should neglect the patient, while we are locating and treating the special condition. Good hygienic and cheerful surroundings, distinctly impress him or her with a possibility of relief, which belief they usually do not have. While the treatment directed only to the chronic constipation will remove many of the symptoms, especially those of auto-intoxication, and often reduce the severity and number of attacks, in a great many cases it does not complete the cure. With the more recent view of the etiology this cannot be expected. In all cases it is the wisest policy—in view of the fact that we have not a fatal disease—that all local and general methods of treatment be resorted to before operative procedure be tried. Apart from reducing fermentation by intestinal antiseptics and an occasional tonic, the less medicine by the mouth the better, particularly those so-called anti-constipation pills which are useless and often positively harmful. Treatment of the constipation dietetically, and by mechanical therapy, lavage, massage, or electricity, are most rational and effective. Commence by thoroughly cleaning out the intestinal tract, not violently, nightly lavage of the colon with colonic tube (it may be necessary to give repeated small doses of cascara with malt), irrigation to be followed by massage. Be careful to avoid violent massage. After thorough cleansing, inject on alternate nights, slowly and preferably through a long Wales bougie, a mixture of sweet oil and glycerine, or of sweet oil alone, about a pint—to be retained all night if possible. This is best given in the knee chest position. The following night, after washing out the bowel, inject again through the long tube, slowly, either ichthyol, one dram to the pint, or aqueous ext. krameria 5 per cent. solution. A solution of hydrastis or hamamelis may be used, but ichthyol and krameria seem to give the best results. These nightly injections should be followed in the morning by cold injections of a pint of water at a time regularly convenient to the patient, to induce regularity of movement. The diet recommended by Van Noorden,—meats in abundance, with fish, eggs, etc., vegetables, leguminous variety, those with much fibrous tissue, spinach, asparagus, celery, etc., is commendable. Avoid starches, sweets, coffee, tea, alcohol. Graham or whole wheat bread and corn bread may be used, except in cases of alternating diarrhoea and constipation.

ACUTE ATTACKS. Patient should be put to bed, with hot applications on abdomen; avoid opiates, using instead a combination of hyoscyamine and strychnine, until relaxation of spasmodic condition of bowels.

SURGICAL. Even the passage of a Wales bougie seems in some cases to be of great service where the sigmoid is bound down, by raising it and probably by stretching the adhesions. In case of floating kidney, it should be anchored or suitably supported. Distinct adhesions in gall bladder, pelvic, and appendiceal region may and often do require surgical interference. The recent operation of intentionally forming adhesion of the beginning transverse colon to avoid the disagreeable results of operations in the gastric area, as advocated by a prominent Chicago surgeon, may prove the beginning of a membranous colitis if the bands are not made sufficiently wide.

Discussion.

DR. W. C. F. WITTE, Milwaukee:—In responding to the request to discuss the surgical aspect of this paper I wish to compliment the writer for calling our attention to pathological conditions heretofore not generally taken into consideration.

The experience of both physician and surgeon has not been very satisfactory in the treatment of this disease, and the wide variance in the ideas of the many authorities only too plainly shows us that all the etiological features are not as yet understood.

I cannot quite agree with the writer that the nervous theory cannot be maintained because the disease is not found more generally in those who are mentally deranged, for although the writer has called our attention to a distinct pathological condition which in many cases is the direct cause of mucus colitis, there are, however, many cases which have been examined in the post mortem room in which no pathological condition of the large bowel could be found.

In order to promote the discussion I prefer to classify the disease into two distinct types according to W. Hale White: To the primary type belong all those cases which are not due to an injury of the bowel or extension from neighboring parts. Nothnagel recognizes this form of the disease under the title of "Colica Mucosa," and by other writers it is considered as simply a neurosis.

It seems as if the essayist has not put enough stress on this form of the disease, which according to Von Noorden in his admirable little book on "Treatment of Colica Mucosa," includes by far the majority of the cases.

This group of cases occurs from between the twenty-fifth to the fortieth year. It occurs more frequently in women than men and there is always a history of digestive disturbance with constipation. In the early stage the fecal mass is occasionally streaked or covered with the tenacious mucus, and later the two characteristic symptoms occur—that is, the appearence of colic and the discharge of a considerable quantity of mucus. That this condition occurs as a result of some disturbance in the digestion and absorption of the food as it enters the cecum is conceded by most writers.

MacEwen has made some interesting observations in a case where the cecum had been opened, the result of an accident, and he was able to observe the cecum, the mouth of the appendix and the ileo-cecal valve. He noticed that when food was taken there was a corresponding increase in the flow of

mucus in the cecum, that the flow from the ileum into the colon was intermittent, that the reaction of the chyme was acid while the secretions of the cecum were alkaline. That mental shock or irritation changed the character or lessened the amount of the secretions. He came to the conclusion that an "alkaline reflex" controlled the flow of the chyme into the colon, similarly as Pawlow has shown that an "acid reflex" of the pylorus controls the flow of the food from the stomach, and that certain mental conditions—corresponding to the nervous theory—allowed too great a flow of the acid chyme into the colon, resulting in an attack of mucus colitis.

Primary mucus colitis is best treated by the physician as outlined in the paper. Only after these measures have failed should an operation be considered—when it seems to me an exploratory laparotomy is justifiable and the treatment then carried out according to the condition found, similarly to such a procedure in the diagnosis and treatment of certain affections of the stomach.

By the *secondary* type of mucus colitis is meant all those cases due to traumatism, to displacement of the various abdominal organs, or extension from some neighboring inflammatory condition, especially from the region of the appendix, gall bladder and pelvis. This class of cases of colitis is surgical, and the pathological condition noted by the writer of the paper under discussion comes under this division. These conditions all lead to a mechanical interference with the peristalsis or anti-peristalsis, as suggested by W. B. Cannon. The latter authority made observations of the peristaltic wave in the large intestine by mixing with the food of the patient certain amounts of bismuth and then using the Röntgen rays. He showed that "the usual movement of the ascending and transverse colon and the cecum is an anti-peristalsis," and any mechanical interference with the passage of the food to the cecum after it entered the colon, where as was shown by MacEwen it was mixed with the secretions of the cecum, may lead to a colitis.

The treatment of the secondary type of mucus colitis is both prophylactic and operative.

The possibility of this condition should be borne in mind in all abdominal operations, and in order to prevent this complication as much as possible, the operation should be performed as rapidly as is consistent with good work, the contents of the abdomen should be handled gently and as little as possible, all abrasions should be covered with normal peritoneum or omentum, the excessive use of gauze for the purpose of drainage should be discouraged, and in its place the cigarette drain used which excites much less irritation and subsequent adhesions. Whenever it is shown that a misplaced organ is the cause of the colitis, nephropexy or suspension of the uterus, or such operation as suits the individual case, should be performed. This class of cases is more easily cured than those resulting from previous operation or extensive adhesions due to previous inflammation.

There have come under my observation several cases of mucus colitis the result of operation for the removal of the appendix. One has submitted to an operation for relief and the adhesions were broken up, but as these adhesions when once well formed are so liable to return, it is too early to say whether the relief is permanent. The secret of success in operations for the relief of adhesions preventing the normal peristalsis of the cecum and colon, is to perform the toilet in such a manner as to prevent their recurrence.

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EDITORIAL COMMENT.

MEDICAL TEACHING AT THE STATE UNIVERSITY.

Much interest has been aroused by a bill recently introduced into the State Legislature at the instigation of President Van Hise of the University of Wisconsin. Inasmuch as this proposed measure concerns our own science so keenly, we wish to give it deserved prominence.

The legislative act that provided for the creation of the University of Wisconsin, in 1848, included the establishment of a Department of Medicine, and actually named eight physicians who constituted the faculty of this department. Lack of funds prevented the materialization of this plan.

Twenty-five years ago a premedical course of studies was organized. While this course was sufficiently adequate at the time of its organization to meet all demands made, medicine has made such enormous strides, that the University would have been sadly out distanced

had it not ever been mindful of the need of keeping this course at all times adequately preparatory to the study of medicine. This motive always in mind, the premedical course was amplified from time to time by the addition of other scientific branches, so that at the present time the accretions of the last decade or more have found the University of Wisconsin possessed of a comprehensive course of studies, of a splendid laboratory equipment, and of a teaching staff whose efficiency equals that of any other University in our country.

Dr. Charles R. Bardeen, Professor of Anatomy, says (in the President's Report,) that "The formal education of one intending to be a physician falls into three fairly well marked divisions: 1, that of general studies; 2, That of special preparation in the basal sciences on which scientific medicine rests; and 3, That of clinical instruction."

The "general studies", those of the regular college curriculum, are, of course, well represented at Madison. The "Basal Sciences" include physics, chemistry, biology, anatomy, bacteriology, physiology, physiological chemistry, pathology, and pharmacology. Of these, all but the last two are now in full operation, and with the addition of departments of pathology, pharmacology and hygiene, the curriculum offered will include all the scientific branches of a thorough medical course.

If in a term of medical studies covering a period of four years, the first two are devoted to a thorough mastery of the fundamental branches upon which medical science rests, and the remaining two are devoted exclusively to clinical work, the student will be amply repaid for his application during the first two years by a mental equipment that will make his acquisition of the practical studies far easier and his comprehension of them the keener.

Twenty-one state universities have complete medical departments. Five teach the medical branches of the first two years, the students being accredited at other universities for the remaining two.

Is there any legitimate reason why Wisconsin should not join the ranks of the latter? A splendid efficiency characterizes the scientific branches now taught, and the equipment of students for their clinical work will be second to that of no other university. In many European centers, and in some of our own medical schools, the specialization of the study of medicine into two divisions—about equally divided between scientific, that is, basal branches, and clinical studies—has been in successful operation for many years.

President Van Hise and his advisers appreciate that the facilities at Madison are inadequate to supply clinical work of the third and fourth years. The plan now proposed is to incorporate the University

as a medical college. This done, the students who do their first two years' scientific work at the University, will receive time and subject credit at the leading medical colleges of the country. Some medical schools will exact an examination in these branches, but the excellent training to be had at Madison will cause no dread of such a test on the part of its students. Furthermore, many state examining boards demand as a requisite, before the applicant may present himself for examination, that he offer proof of full four years' attendance at a recognized medical school. The conditions here imposed make incorporation desirable, even essential. The medical department properly incorporated, those men who have creditably completed their first two years' scientific work at Madison and their clinical work at some institution acceptable to the University, may receive their degree from the school at which the clinical studies were taken. Or, as obtains in England at the present time, an additional degree may also be given at the University where the student was first enrolled for his scientific work.

President Van Hise's purpose is not only to enable men who so desire to begin their medical studies at the University, but, as outlined in his Report, to establish a set of laboratories under the most competent workers, where research work in pharmacology, hygiene, and experimental pathology may be carried out. The value of such work to the state cannot be overestimated.

We hope to see the day when the University's medical department will comprise a complete course of medical studies covering the clinical work as well as the basal branches. (We see no reason why normal physical diagnosis may not be profitably added to the work of the first two years.) With a large hospital at its disposal, Milwaukee would probably offer excellent facilities for adequate clinical opportunities, especially if the clinical branches are taught by men thoroughly fitted by previous laboratory and hospital training for such work, and if they meet the requirement laid down by Professor Barker—that they devote their entire time to educational work.

We are in hearty accord with the President and Regents of the University of Wisconsin in their efforts to establish a medical department at Madison. Our State University has made tremendous strides in the past decade. Its component colleges have been recognized as equal to the best in the land; they are superior to many. It already has an equipment of laboratories that is the envy of many older institutions. Its research work in all branches has brought it fame. The same creative spirit that has made the University what it is today, is still at the helm, ready to guide it successfully to the accomplishment of still greater things. Our pride in our State, our University, and in

our profession is such that we—the physicians of this State—can ill afford not to assist by every means in our power, the establishment of a new college, a department of medicine, on the lines proposed by President Van Hise.

A SIGN OF THE TIMES.

The Milwaukee *Journal* is the first local daily paper that has risen superior to a consideration of revenue as the sole motive of its existence.

The following brief and modest paragraph recently headed the editorial column and tells a tale that marks the beginning of a march of progress:

ANNOUNCEMENT.

The columns of The Journal are no longer open to advertisements of doctors which appeal to persons afflicted with offensive diseases. Beginning to-day all such advertisements will be rejected.

The advertising fakirs are resourceful; many of them are men of unlimited means; and it is but natural that in their struggle for existence they will spare no pains to keep their concerns afloat.

We have often dwelt upon the fact that the quack could never have sustained a menacing existence had the newspapers not been an open sesame to him. Barred from advertising, his support is gone, or at any rate, his opportunity for evil doing is small. Even the resort to legislative enactment would then hardly be needed as a repressive measure.

The death knell of medical charlatanry will be sounded when other papers also begin to see the light. It would be most venturesome to predict the period of the awakening of their commercially guided souls to a sway of moral influences.

A splendid beginning has been made. The Milwaukee *Journal* deserves and has earned our gratitude. It is an influential organ whose circulation is very large. May we hope that it will soon champion the fight, and exert its influence for good throughout the city and state?

A DESIRABLE AMENDMENT.

We are in receipt of a letter from Dr. R. Broughton, of Rockford, Ill., in which he recalls a regretable lack in the constitution and by-laws of the reorganized State Society. In the course of the letter he says: "I do not regret paying the Wisconsin State Medical Society about $100 in dues and assessments, even though they notified me, in

my old age, that I could no longer affiliate medically with the good men of that state."

We find that Dr. Broughton was, until he was dropped from the Society because of residence in another state, one of the oldest members enrolled. He has displayed in this and other business letters addressed to us, a sentiment toward the organized profession which has become only too rare in latter days, and it seems to us that some plan should be devised by which the new constitution and by-laws should be so amended, at the next meeting, that commonplace geographical lines be prevented from ever arbitrarily blotting out that important and priceless possession—loyal sentiment.

REMARKS BY THE OPPRESSORS.

With the return of every legislative session, with much the same regularity as the robin returns in the spring, the discontent of those who feel the restrictions of the medical practice act, finds expression in attempts to modify the existing law so as to "give them a chance." The most recent protest from the disgruntled is sent forth under the Jack London-ish modern fiction title of the "Plea of the Oppressed." It is fathered by the organization known as the "Wisconsin Medical Union"—presumably they are "the Oppressed"—which has on several occasions been favored with notice in these columns, mainly to call attention to the records (?) of some of its officers. "A worthy son of a worthy sire" applies to the "Union" and its "Plea"; we append the text of the bill, regarding other comment as superfluous.

PLEA OF THE OPPRESSED.

AN ACT to Simplify the Medical Practice Laws of the State of Wisconsin.

The People of the State of Wisconsin represented in Senate and Assembly do enact as follows:

SECTION 1. All persons, whether graduates or not, who were duly registered with the Wisconsin Board of Medical Examiners in accordance with Chapter 87 of the Laws of 1899, are hereby declared to be entitled to all legal rights the same as licensed physicians and any such registered physician who shall make application by mail or in person to the secretary of the Wisconsin Board of Medical Examiners for a license certificate in exchange for his or her registration certificate shall upon the payment of $5.00 and the surrender of said registration certificate be granted a license certificate.

SECTION 2. Every person who has been granted a Physicians license or registration certificate from the Wisconsin Board of Medical Examiners shall by virtue of such license or registration have all legal rights to practice Medicine, Surgery or Osteopathy and the right to collect fees by law, testify in a professional capacity and use the title of "Doctor," "M. D.," "M. B.," "D. O." or any other professional designation as a specialist.

SECTION 3. No license or registration certificate, issued by the Wisconsin Board of Medical Examiners since July 1, 1897, shall be revoked on the ground of "error" in issuing the same, or for any offense for which punishment is now outlawed by the limitation statutes of this state, unless suit to revoke such license or registration certificate shall have been commenced within six years from date of issuing such license or registration.

SECTION 4. All acts or parts of acts conflicting herewith are hereby repealed.

SECTION 5. This act shall be in effect on and after its passage and publication.

This act would put a stop to persecuting peaceable and conscientious registered doctors either for presenting themselves to the public as "physicians" as their registration certificate say they are, or revoking their registration on the ground of so claimed errors in issuing it. This act will not interfere with Section 2 of Chapter 422, Laws of 1905 revoking certificates for fraud, crime, immoral conduct, etc.

REGULATION OF MIDWIFERY.

The following letter was transmitted to their assemblyman, by the physicians of Brown county:

Green Bay, Wis., Dec. 3, 1906.

To the HON. TIMOTHY O. BOURKE, Member of Assembly, for the First District of Brown County, Wisconsin:

At a regular meeting of the Brown County Medical Society, held Nov. 12, 1906, at Green Bay, Wis., we, the undersigned committee, were appointed to invite your attention to the necessity of a law governing the practice of midwifery by persons who are not now qualified by law, to the end that they may be required to undergo an examination, and obtain a license setting forth their efficiency for the proper practice of the same.

Your attention is called to the fact, that while in some sections of the state it may be necessary to call upon midwives, such persons when called upon should have a proper education to enable them to properly perform the duties incumbent upon them. We have many in the state at large and some in our own city, who are ignorant and incompetent to the detriment of their patrons.

You are respectfully requested to formulate a proper law. covering the above subject, and urge it to passage at the next session of the State Legislature.

Signed: B. C. BRETT,
A. W. SLAUGHTER,
R. H. SWEETMAN, *Committee.*

We are aware that a bill regulating midwifery has been introduced into the Legislature, though by whom fathered, and what its nature is, we have not yet learned. Presumably, however, it embodies the proper licensing of all those who desire to follow this practice.

This bill deserves our hearty support. That much mischief is being done daily by inexperienced and careless midwives—and as

physicians we know only too well the many dangers of accouchment —is beyond denial.

Let the County Medical Societies take notice. They can, without a dissenting voice, pass a resolution in support of the measure now before the legislators, and transmit such resolution, with any elucidation that may seem desirable, to their representatives at Madison. A request of this nature, coming from various sections of the state, will surely strengthen the chances of the bill's passage.

THE FETICH OF DISINFECTION.

Much editorial comment is being indulged in by the medical journals on a rather startling paper and its subsequent discussion which took place at the last American Medical Association meeting. Dr. Chas. V. Chapin, Health Officer of Providence, R. I., advanced the heresy that the prevailing methods in dealing with houses which have had cases of contagious disease, are useless and based on fallacious premises. His earnestness at least entitles him to a hearing and just such reactionary criticism of accepted teachings makes for progress in medicine. Dr. Chapin's conclusions are these:

"1. The pathogenic bacteria tend to die rapidly after discharge from the body.

2. There is very little bacteriologic evidence that things remain long infected, and therefore, contact between the non-infected persons and the infected things must be very direct and very close in point of time if the things are to transmit the infection.

3. Clinical evidence of the necessity for disinfection is wanting.

4. The true explanation of the spread of contagion is the great number of unrecognized, atypical and 'carrier' cases.

5. Infected persons, not infected things, are to be feared.

6. Disinfection, that is, official disinfection as a final precautionary measure, has little value in preventing the spread of the common contagious diseases.

7. This sort of disinfection is a powerful factor in preventing sanitary progress, by encouraging belief in discredited theories.

8. While it is by no means advisable to abandon disinfection entirely, it should not be made so important a part of the public health work, and should not be insisted on unless it is practically certain that no member of the household remains infected, and should be refused when it is probable that any member of the household is so infected."

We cling to disinfection so tenaciously, says Chapin, not because of indubitable evidence of its value, but because it is a survival of a former religious purification rite, the attempt to give it a scientific

basis being an afterthought. The belief in transmission of disease by fomites is poorly supported. Because it is widely held to be true does not make it so: yellow fever was pre-eminently held to be spread by fomites until the mosquito transmission theory was proved. So while clothing, or books, or toys, or rooms may be infected or remain so for a period, yet reports of infection from such sources are poorly authenticated, and if it can be established that infection does so occur still it occurs in too inconsiderable a degree to account for the wide prevalence of contagious diseases.

The real origin of the mass of contagious disease is in unrecognized mild cases, in clinically convalescent cases and in the so-called "carrier" cases or resistant persons who are well, but carry infectious germs in their systems.

Between Dr. Chapin's extreme stand so ably defended by him by the use of most convincing data collected during his extensive experience as a health officer, and the blind credence heretofore so implicitly given to house disinfection in dealing with transmissable diseases, there is somewhere a middle ground which we shall undoubtedly adopt. It will probably be found in the last analysis that certain diseases require little or no house disinfection and more pains with the convalescent patient until his particular growth of bacteria has become extinct; that others will demand the utmost care in the disposal of infected fomites, and that other diseases will occupy a ground between the two. Dr. Chapin's article is not to be construed as an argument against the greatest pains in general cleanliness in all infectious processes, but probably will cause us as a profession to make greater efforts toward the prevention of direct communication from the patient to others.

NEWS ITEMS AND PERSONALS.

Dr. Fred C. Segelke of Milwaukee, died from the effects of an overdose of morphine, Feb. 3rd, aged 27.

Dr. F. J. Antoine, and Miss Rose Marie Garvey, both of Prairie du Chien, were married on Feb. 11, at Racine, Wis.

Dr. Adolph Sontag, died on February 2nd, at his home in Milwaukee, aged 28 years. Dr. Sontag was born in Milwaukee and had lived here all his life. He was a graduate of the Wisconsin College of Physicians and Surgeons, and had been practicing two years.

The Milwaukee Sanatorium for Tuberculosis Association has purchased a 13 acre tract of land on the Blue Mound Road, three-quarters of a mile

south of the county buildings, as a site for its proposed sanatorium. The consideration was $8,000. Provisional plans have been prepared for the erection of several cottages on the site.

"The Military Surgeon." This title has recently been substituted for the former rather unwieldly one—"Journal of the Association of Military Surgeons." This periodical, the pioneer military medical Journal in the English language, has a most enviable record of deserved success. The series of articles following the Japanese-Russian war, was especially noteworthy.

Large Examination Fee. The fee demanded for examination to practice in Peru is $500 in gold, the same fee paid by a medical student during his 7 years' course of instruction in the national colleges. The license is good for practice in Equador, Bolivia, and Spain. The examination is taken in Spanish.

It is not likely that these countries will find themselves overrun with American-won diploma bearers.

Dr. Wm. H. Rowe, died on February 4th at the Northern Hospital for the Insane, at Oshkosh. He was 51 years old. Dr. Rowe was born at Menomonee Falls in 1856. He was graduated from the medical department of the Iowa State University in 1885, and after practicing a year at Boltonville, went to Waukesha.

Dr. Rowe's mental condition became rapidly worse following his wife's death, several years ago. About a year before his committment to the asylum he went to Alabama where he resided several months.

Children's Hospital Report. The annual report of the Children's Free Hospital of Milwaukee has been submitted. 312 patients were admitted during the year ending January 31st, 1907. Of these 115 were medical cases; 64 surgical, 73 ear, nose and throat; 30 skin; 30 eye. This is an increase of 49 over last year. There were 30 deaths in th Hospital during the year occuring in the various services as follows: 23 in the medical; 4 in the surgical; 2 in the skin, and 1 in the eye.

Pennsylvania Raises Requirements for Admission to Medical School. Recognizing the advantages of a broader general education and the growing necessity of the prospective student having in addition special preparation for the study of medicine, the Board of Trustees of the University of Pennsylvania has decided recently to raise the requirements for admission to its medical school. These requirements include two years of general college training and in addition a certain knowledge of biology, chemistry and physics. According to the plan which has been adopted, the standard will be raised gradually, beginning with the academic year 1908-1909 and reaching the maximum 1910-1911.

SPECIAL ARTICLES.

THE SUBCONSCIOUS AND PROF. JASTROW'S BOOK.

BY W. F. BECKER, M. D.,

MILWAUKER.

It is surely a sign that the word "subconscious" is achieving a currency devoutly to be wished, when a negro woman recently undergoing an examination of her heart said to the doctor listening at her chest, "Are you listening to the subconscious, doctor?"

This is what Prof. Jastrow of the University of Wisconsin has been doing—listening to the "subconscious," by trained introspection, by the revelation of dreams and drugs, by hypnotism and hysteria, by the study of absent-mindedness and multiple-mindedness; and what he has heard he has set forth in a volume, "The Subconscious" (Houghton, Mifflin & Co.)

It is this kind of research which makes psychiatry the debtor of the collateral sciences, and from no source can more illumination come than from psychology. Our recent strides in psychiatry of which we may well be proud, are after all but clinical. The large yield of the future must come through the revelation of the normal mind and especially that essential part of it, the "subconscious."

How essential is not commonly realized. If the study of mankind is man surely we have him here stark revealed in the subconscious. He lives and moves and has his real being here. What he is conscious of, what he is immediately aware of, one might almost designate as the adventitious, only an island in the vast ocean of the subconscious. Consciousness illuminates as by a flashlight only a limited area of the mind's landscape leaving the larger part in outer obscurity. In this dark and crepuscular part, the subconscious, dwells the real self, the racial self, plus all the impressions that have ever wittingly or unwittingly poured through the individual senses, deposited as ideas, stored as memories and, like the impressed wax on the phonograph cylinder, are capable of being reproduced in the arena of consciousness each in its own good time. In the subconscious lie man's deepest experiences, his naivete, his greatest wisdom and virtue—for we are wiser and better than we know, as old Dr. Dudley was wont to say. Indeed in its hidden depths lies the undreamed of in our philosophy, the "somewhat in the world amiss will be unriddled bye and bye."

We fail to appreciate that it is the subconscious rather than the conscious effort which tells in our individual achievement, that it and

not the conscious, contains the real capital of the mind's business, that by its equipment is the career made or marred. "In hoc signo vinces." For the nature counts for more than the nurture in the long run, as Prof. Donaldson has shown even in the development of the brain. The native mind, the elemental mental power are the forces to be reckoned with, education in the scholastic sense having little or no influence on native brain power.

Here in the subconscious is the habitat of the beings whom Huxley long ago christened "conscious automata"; here the automatic life lives and reigns, the function that is partly inherited as the hunting dog inherits his instinct, and partly acquired, laboriously and consciously at first and then delegated to the subconscious, consciousness thereafter largely abdicating and leaving the stage to the more continuous performance of the subconscious. Thus, to put it sweepingly, a man awakens to consciousness in the morning, then in a more or less subconscious state goes through an amount of buttoning or unbuttoning, to "come to" again, so to speak, at the breakfast table to complain of the coffee perhaps or the slump in stocks. He lights his cigar, starts the mechanism of walking down the street, buys a paper, nods to passing acquaintances, all with little or no use of his cerebrum, "coming to" again perhaps when he sees a creditor to avoid him. In the meantime he has formed a judgment on his patent or a conclusion on a business problem.

It is the revelation of the subconscious that has been interpreted so largely and deplorably in metaphysical and occult terms. Psychological records voluminously, if not luminously teem with "supernatural experiences," largely of a kind by which some unsuspected possession of the subconscious passes into consciousness to the surprise and mystification of the subject—cases like that of the servant girl who recited Latin during her fever, but repudiated any knowledge of the language after her recovery, it appearing later that she had long occupied a room adjoining a priest whose nightly recitations had entered her consciousness unwittingly, to appear again in her delirium. Prof. Jastrow is in this particular once more deserving in promoting the natural explanation of many of these phenomena so largely interpreted in terms of the occult and higher foolishness. He holds the subconscious as a natural function intimately related to the conscious. While appreciating the great work of Myers, has no need of assuming the latter's metaphysical conclusions that the subconscious is a distinct entity—a personality—the "subliminal self" which Myers couples with the question of its survival after bodily death. He stands rather with the medical psychologists like Boris Sidis, who go so far into the

psyiological as to attribute many of the normal and abnormal phenomena of the subconscious to retraction of the end-brushes of the nerves. Indeed there is aid and comfort to the medical man in this kind of pursuit of the subconscious as well as to the pedagogue and the sociologist. Surely such brilliant results for instance, as Dr. Morton Prince achieved in uniting the severed personality of Helen Beauchamp, would not have been feasible in the days of Huxley's automatic sergeant.

The great interest of this now famous case of Dr. Prince which Prof. Jastrow has analyzed, will excuse its further mention. Helen Beauchamp's personality, though capable of splitting into four more or less distinct parts, was in the main a double one. The normal and original was Miss B. herself, a cultivated, conscientious young college student, the other a personality quite the opposite, mischievous, impish, lacking the culture and ideals of Miss B. (she could not speak French as Miss B. could), who was called "Sally." Changes from one of these personalities to the other take place frequently; of a sudden one wakes to find herself unconscious of what she has said or done in the character of the other and it takes the social ingenuity of Miss B. to explain away embarrassing circumstances the product of her other personality. Thus while talking to someone well known to her in the personality in which she happens to be, she may suddenly wake up in her other personality and find that she does not know the person to whom she has been talking. Each consciousness or personality is continuous with itself, over the lapsed period occupied by the presence of the other, and each consciousness is distinct in content from the other. Thus she has different acquaintances, different tastes, different habits, different experiences, beliefs, ideals and practices in each personality. Indeed, between Miss Beauchamp's personality and "Sally" there is a distinct conflict. Thus Sally took diabolical delight in subjecting Miss B. to embarrassing and even tormenting situations. Miss B. had the common aversion to spiders and Sally would wrap up a neat package of them and lay it upon the table, where the unsuspecting Miss B. when she made her next appearance in consciousness, would fall into the trap and innocently open the package. So also Sally took Miss B. on long fatiguing walks—Sally never feeling fatigue. She would wake herself as Miss B. when a long distance from home and subject the easily exhausted Miss B. to a long and exhausting walk back, sometimes first having taken the precaution to hide her purse so that she could not ride home. To torment Miss B., Sally would unravel the worsted work upon which the former was engaged and would coil it round her body, Miss B., coming to, would find herself in the tangle.

These antagonisms even extended to bodily hurts as on one occasion when Sally scratched Miss B.'s arm and then rubbed lemon juice into the scratches ostensibly remedial. On another occasion she threatened to cut off Miss B.'s hair, but the click of the shears woke up the Miss B. personality in time to prevent it. The facts in this interesting case are so dramatic as to have almost persuaded Dr. Prince to entitle his scientific volume "The Saint, the Woman and the Devil," and novelists have found a new vehicle in the subject.

There is no richer material for the study of the subconscious than that of double personality. In all of us there are elements of such plural feeling, such as the dual feeling—the me and the I, the subjective and objective ego, the imperial I that would fain direct the recalcitrant me (antagonism), the Pauline and Plato doctrines of the spirit and the flesh. All these as well as the various expansions of the me feeling into material, social and religious mes, etc., are common and convincing data of consciousness. But their detachment and especially the continuance of each with itself over lapses are not so common an experience. Our dreams sometimes occur in serial editions exhibiting a continuity of dream consciousness over an interval or two of the waking state, and what we call our moods exhibit decided detachment of personality—periods when we are not ourselves; when we from ourselves are taken away; when ancestral ghosts, as Dr. Holmes long ago put it, arise in us; when we entertain feelings and actions which astonish us which we would later repudiate and would fain forget if we do not actually do so in certain measure after the manner of well developed cases of double personality. And when we come to abnormal conditions we find these relatively more marked, as for instance the intensely expansive feelings of the ego prevailing in many mental disorders.

It would seem that the moral and most highly evolved consciousness is a unified one, degrees of instability and tendencies to disintegration making their appearance in more or less abnormal persons, in dream states, absent-mindedness, anesthetics and par excellence hysteria and hypnotism, and all furnishing material for the study of the subconsciousness which Prof. Jastrow has excellently worked. To this workable material may well be added the condition of alcoholic intoxication, material as common and available as it is fertile and unexplored.

Various methods are employed in bringing into consciousness the contents of the subconscious. Thus hypnotism is used in artificially inducing changes from one personality to another in cases of multiple consciousness, and through this agency states of mind present in the

abnormal consciousness can be discovered to the normal consciousness, as in the classic case of Ansel Bourne in whom Prof. James by hypnotism was able to discover much that took place during his life for months in another personality, in which he had left his church (he being a clergyman), had opened a little store in another state, lived the life of a respected and humble citizen, with no knowledge of his normal life. He had come to himself one day and returned to his old home, the life he had led in the distant town being thereupon a blank. It was this lapsed consciousness that Prof. James was able to piece together largely and later verify by investigation.

Glimpses into the subconsciousness may also be vouchsafed by the method of "crystal gazing" with which good visualizers have acquired expertness. This consists of looking intently into a reflecting surface |while other impressions are shut out), where there are revealed mental images that had been stored in the subconscious and had either impressed consciousness but little or so feebly as to have been forgotten. Thus Miss J., who had this fortunate and convenient faculty of tapping the subconscious, says "it is just the things we see without noticing at all, which the crystal is calculated to bring to our attention. For example, I have forgotten the day of the month. I read the Times this morning and chanced to remember that the first name in the births was Robinson. My power of visualization enables me to create in the crystal a picture of the first column, my memory, helped by the association, does the rest. I carry my eye along and see that the date is September 6th." Pictures in the subconscious may also be seen sometimes by simply shutting the eyes. Many persons may be at times disturbed by them. In fever they are sometimes colored.

Prof. Jastrow welcomes all leads that divulge the secrets of the subconscious, and all investigation of this field cannot but be commendable so long as it is interpreted in natural terms. For example, crystal-gazing, which is often deprecated, is a valid method of investigation so long as experimenters do not interpret the results in terms of the supernatural and understand that they are simply tapping subconscious impressions. Even fads of planchette and table-tipping, which are of the same order of phenomena (subvoluntary), are only harmful when there is failure to realize that nothing but what has been contained in the mind can make its appearance, however reluctant the consciousness may be to father it. Indeed, we are unwittingly practicing visualizing or crystal-gazing when hunting for a lost word or idea, fixing the eyes intently and shutting out distractions.

Too much space has already been taken to further mention Prof. Jastrow's interesting and ingenious classifications of the lapses of

consciousness. Particularly interesting also are the chapters on "Self-Consciousness" and "The Subconscious in Mental Procedure" in Part 1 (The Normal), as well as "The Genesis of Altered Personality" in Part 2 (The Abnormal). The entire subject is set forth in masterly analysés with a breadth of vocabulary and a richness of simile and examples.

Finally in this work Prof. Jastrow, largely unwittingly, perhaps, and incidentally shows what works on the mind too often fail to emphasize, namely, that states of feeling rather than thought are the essential activities of the mind, the word mind or mental in popular conception being held synonymous with reason or intellect, and that which plays so large a role in mind, viz., the feelings, being relatively subordinated. So in insanities this conception is ever looking for intellectual disturbances, whereas many of the disorders of mind affect the feelings rather than the reason.

Likewise, acceptable to the physician at least is the assumption all along, of the relativity of mental disorders—that normal, abnormal and morbid phenomena differ rather in degree than in kind. This is another doctrine which cannot be sufficiently preached. That woman had the right conception who was asked if there was any insanity in the family and who answered, "Not to any excess, doctor."

THE MEDICAL DEPARTMENT AT THE STATE UNIVERSITY.

President Van Hise in his last report to the Regents has strongly recommended the establishment of a medical department at the State University. A bill to this effect has been introduced into the Legislature and will come up during the present session. Owing to the importance of this legislation for the advance of the medical sciences in Wisconsin, a copy of President Van Hise's report, accompanied by the following letter has been sent to all members of the State Society. Anyone who by mischance failed to receive a copy of the report may get one by applying to the Registrar of the University.

Madison, Wis., Feb. 1, 1907.

DEAR DOCTOR:—At the instigation of the State Medical Society in 1886-7, a group of studies was arranged at the University designed to give a special preparation to students intending to study medicine. The pre-medical course proved to be a valuable aid in the medical education of those fortunate enough to take it, and achieved a reputation in all the great medical centers as one of the very best, if not the best of its kind in the country. Recently the course

has been greatly strengthened by the addition of thoroughly equipped and well manned departments of anatomy and physiology, including physiological chemistry.

There are now offered at the University thorough courses in chemistry, physics, biology, comparative and human anatomy, histology, neurology, embryology, physiology, physiological chemistry, and bacteriology. There has been introduced in the present legislature, a bill providing for the establishment of departments of pathology and pharmacology, and the organization of a medical department designed to give the first two of the standard American medical courses of four years. Madison does not offer sufficient clinical material to make it desirable to establish there departments of clinical medicine, but we are informed that full credit will be granted in the foremost medical schools of the country for the work done at Wisconsin in the basal sciences, so that the student may go to some center where there is abundant clinical material for the completion of his course.

The needs and the advantages of the establishment of the new departments and the incorporation of a medical college at the University have been fully set forth in the last report of the President of the University, pp. 40-58. By request copies of this report have been placed at the disposal of the officers of the State Medical Society for distribution to members of the society. It seems highly desirable that the members of the society should be fully informed of this plan to advance the medical sciences and medical education in Wisconsin.

The advantages of the plan proposed for the incorporation of a medical college at the State University and providing for the first two years of a medical course may be briefly summarized as follows:

1. The advancement of knowledge in the realms of the basal sciences of medicine: in anatomy, physiology, physiological chemistry, pharmacology, bacteriology, pathology, and hygiene.

2. To give the young men and women of the state who desire to study medicine an opportunity to complete, in addition to preparatory training, at least two years of their medical work. They will thus be able to complete their medical course elsewhere by two years of additional work.

The advantages to the medical profession of the presence in this state of active, productive laboratories, devoted to the advancement of the sciences on which modern medicine is based, are obvious. As pointed out by Professor Bardeen in his address prepared for the La Crosse meeting of the State Medical Society, and printed in the Wisconsin Medical Journal for June, 1905, it is the desire of those in charge of the University departments most closely related to medicine to enter into relations of mutual benefit with those physicians of the state who are engaged in the practical application of scientific knowledge to the cure and control of disease. The practical experience of the physician will enable the scientist to appreciate more quickly the needs of the state for new knowledge. The presence of productive laboratories in the state will enable the physician more readily to keep up with the rapid advances being made in the basal sciences. Through the modern system of library exchange every physician in the state can readily obtain the best literature on any subject in which he may become interested, if the library contemplated in connection with the new medical department is established.

The time and expense demanded of those who desire a medical education has more rapidly advanced of recent years than in any other branch of education. Many of the leading medical schools now require from two to four years of college work as a prerequisite for four years of medical study. Some states have announced that at least one year of college work preliminary to the four year medical course will soon be demanded of all who seek a license to practice. Of the six or more years of college work demanded of those who seek the highest medical education, it seems that Wisconsin should furnish opportunity to pursue at least two-thirds since she already furnishes complete courses in agriculture, law, engineering, and for the training of teachers.

We therefore feel certain that the bill which has been introduced should have the hearty support of every physician in Wisconsin and especially of the members of the State Medical Society.

L. H. PELTON, *President.*
CHARLES S. SHELDON, *Secretary.*

CLINICAL REPORT.

Editor of THE WISCONSIN MEDICAL JOURNAL:

H. W., a young man of 20, employed as baggage-man at local depot, while lifting a heavy case of goods, was seized with sudden sharp pain in right inguinal region, followed immediately by symptoms of severe shock and collapse, cold, beady perspiration, pallor, rapid respiration, sub-normal temperature, weak, rapid, and fluttering pulse.

On questioning, found that patient had had a right inguinal hernia for a number of years, necessitating wearing of a truss. Also that he had but one testicle in the scrotum, the right side being empty or occasionally partly filled by the descended intestine. The pain experienced at the time of the attack was of a sharp, tearing character.

On examination found a slight tumefaction over the right inguinal canal, with extreme tenderness; a small, soft, reducible mass protruding into scrotum through inguinal canal; left testicle present and fully developed. Was able to fully reduce the hernia; put on small pad and held in place with rather loose bandage; proceeded with ordinary treatment for shock. Patient rallied rapidly and when again seen next morning found general condition good with exception of slight temperature (100). Upon examining scrotum found the right testicle in the sac, and no intestinal loop, still some swelling over canal, and slight tenderness; was unable to introduce tip of little finger into canal, whereas the night before could pass index finger way up. The newly descended testicle was harder and more firm than the left, but only about one-half the size.

Kept patient in bed for one week, with a small loose pad over the external ring, and at that time had no return of hernia, even when patient was erect and coughing. A slight tenderness persisted for about two weeks after attack, but no other evidences of trouble. Heard from this patient some three months afterward and found that condition was perfectly normal.

Bayfield, Wis. L. W. ANDERSON.

PURIFICATION OF WATER SUPPLY.

Not long ago purification of water by means of copper sulphate was given much publicity and seemed at the time to be a cheap and effective process. Various other methods have been experimented with, and one that seems better than the average is a system of purification by means of ozone, a report of which has recently been transmitted to the Paris municipal council, confirming results obtained in a previous set of experiments made in 1905. In the experiments filtered water was used, and this was often found to contain bacterium coli and other bacteria. The ozone process was found to eliminate many of the bacteria found in the water, and to permanently destroy the bacillus coli which has even greater resisting power than the typhoid bacillus or the cholera spirillum. The cost of the treatment is estimated at about 1½ cents per 1,000 gallons.

ANTI-OPIUM MOVEMENT.

The interesting announcement (*U. S. Consular Reports*) is made that a plant has been found in China, for which the claim is made that it cures the opium habit. Confirmed smokers are reported to have been cured in one week.

The leaves of this marvelous plant are first exposed to the sun, chopped fine and roasted, and then an infusion is made—which is the much wanted specific. The claims made for this medicine are wonderful, and the anti-opium movement is said to be very active. Dispensaries for the free distribution of the medicine have been formed in one of the Chinese provinces, the applicants here numbering 2,000 daily. It is related that in this province alone 14,000 people have been cured of the opium habit. In consequence of this the income of the opium shops has been much curtailed, a number being forced out of business entirely.

If any evidence were needed of the moral awakening of China, this interesting movement alone would suffice to establish the fact. Its significance cannot be underestimated.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.		FOR FOUR YEARS.	
1st Dist., H. B. Sears,	Beaver Dam	7th Dist., W. T. Series,	Sparta
2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
FOR TWO YEARS.		**FOR FIVE YEARS.**	
3rd Dist., F. T. Nye,	Beloit	9th Dist., D. L. Sauerhering,	Wausau
4th Dist., C. A. Armstrong,	Boscobel	10th Dist., E. L. Boothby,	Hammond
FOR THREE YEARS.		**FOR SIX YEARS.**	
5th Dist., J. V. Mears,	Fond du Lac	11th Dist., J. M. Dodd,	Ashland
6th Dist., J. S. Walbridge,	Berlin	12th Dist., A T. Holbrook,	Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

CALUMET COUNTY MEDICAL SOCIETY.

The fourth quarterly and annual meeting of the Calumet County Medical Society was held at Hilbert, December 11, 1906.

Dr. H. E. Luehrs of Hilbert furnished a paper on *Diphtheria and Tonsilitis* and the subject of differential diagnosis furnished an interesting topic for general discussion.

Dr. Hoague of Potter was admitted to membership. Every physician practicing in the county is now either a member of the society or has his application in, a record of which we are justly proud.

The following officers were elected for 1907: President, Dr. G. P. McKenney, Stockbridge; vice-president, Dr. C. G. Grengo, Chilton; secretary and treasurer, Dr. L. Rock Sleyster, Kiel (re-elected); delegate, Dr. J. N. McComb, Brillion; alternate and censor for three years, Dr. E. L. Bolton, Chilton.

Dr. Mears of Fond du Lac, Councillor for the district, was present, and his talk to the society thoroughly enjoyed.

L. ROCK SLEYSTER, M. D., *Secretary.*

DUNN COUNTY MEDICAL SOCIETY.

The Dunn County Medical Society held its regular monthly meeting at the Hotel Royal, Menomonie, January 15th. Dr. B. J. Edwards of Mauston was a guest of the society.

Several interesting clinical cases were reported. Dr. J. F. Denham read a paper on *Best Methods of Transportation as Adapted to the Doctor's Use*, in which he compared the cost of maintaining an automobile with a team of horses, showing that it costs one-third more to maintain an auto than a team "in Dunn County."

Adjourned to February 19th.

F. E. BUTLER, M. D., *Secretary.*

IOWA COUNTY MEDICAL SOCIETY.

The Iowa County Medical Society met February 6th at Mineral Point and elected the following officers: President, Dr. T. S. Lawler; vice-president, Dr. J. P. Parmly; secretary and treasurer, Dr. S. P. Deahofe; delegate, Dr. W. M. Gratiot.

Dr. H. D. Ludden was elected to membership in the society.

Dr. Hughes of Dodgeville, Wis., read a paper on *Diseases of the Testicles and their Treatment.*

A banquet was served after which the society adjourned to meet at Linden, May 7th.

S. P. DEAHOFE, M. D., *Secretary.*

JEFFERSON COUNTY MEDICAL SOCIETY.

At the annual meeting of the Jefferson County Medical Society, held at Jefferson, December 28, 1906, the following officers were elected: President, Dr. Wm. F. Whyte, Watertown; vice-president, Dr. Thos. F. Shinnick, Watertown; secretary and treasurer, Dr. Carl R. Feld, Watertown; censor, Dr. W. H. Oatway, Lake Mills.

The society is in a flourishing condition. Four meetings were held during the year, all of which were well attended.

The next meeting will be at Fort Atkinson, Tuesday, March 26.

CARL R. FELD, M. D., *Secretary.*

KENOSHA COUNTY MEDICAL SOCIETY.

The regular meeting of the Kenosha County Medical Society was held at the residence of Dr. G. Windesheim. Twenty-one members were present. Dr. Helen Harbert read a paper on *The Use of Electricity in Gynecology.*

Drs. Spalding, Kimball, and Van Westirenen were recommended for membership by the board of censors and unanimously elected. On motion a committee of three was appointed by the chair to draft resolutions relative to the reduction of examination fees in certain life insurance companies.

After adjournment a bountiful luncheon was served by Mrs. Windesheim. The next meeting will be held March 1st, 1907.

J. RUSSELL EASTMAN, M. D., *Secretary.*

LANGLADE COUNTY MEDICAL SOCIETY.

The meeting of the Langlade County Medical Society held at Antigo, February 1st, was called to order by the President, Dr. G. H. Williamson.

The applications of Dr. W. H. Lewis, Dr. H. G. Westphal, and Dr. W. F. Austria, were presented and acted on favorably by the Board of Censors. The time of meeting of the society will be changed from the first Friday of every second month to the second Friday of every second month.

Dr. H. P. Beattie read a very interesting paper on *Eclampsia;* the discussion following was general and twelve members took part. The aggressive spirit of progress which we have had for some time seems to be growing stronger every meeting.

Our next meeting will be April 12th.

GEO. W. MOORE, M. D., *Secretary.*

ONEIDA COUNTY MEDICAL SOCIETY.

The January meeting of the Oneida County Medical Society was held January 29th. A very interesting and instructive paper on *La Grippe* was read by Dr. J. T. Elliott. Dr. J. M. Hague read an exhaustive paper on *Gastric Ulcer.*

The next meeting will be held February 2nd.

S. R. STONE, M. D., *Secretary.*

SHEBOYGAN COUNTY MEDICAL SOCIETY.

At the annual meeting of the Sheboygan County Medical Society, held December 10, 1906, the following officers were elected: President, Dr. A. B. Bock; vice-president, Dr. Conrad Tascher; secretary and treasurer, Dr. W. F. Zierath; delegate to State Convention, Dr. Arthur Genter; censor, Dr. W. H. Gunther.

The regular monthly meeting was held January 14, 1907, at the Elks' Hall. Dr. G. V. Mears, the Fifth District Councillor, was present and addressed the assembled physicians concerning the benefits of organization. Dr. Mears referred to the power exercised by an active county organization in influencing legislation and raising the standard of professional integrity. He spoke of the benefits of membership in the county society and likened it to a post-graduate course in medicine. Harmony and good fellowship is promoted by all the county physicians taking an active part and interest in the society's programs. He advocated persistent efforts to get eligible men into the society. On preparing and presenting papers to the society Dr. Mears urged that simple subjects be chosen in preference to papers on the more complicated problems. The Doctor's address was very much to the point and was very well received.

Following his address Dr. Ryan read a very able paper on *Eye Strain.* Dr. E. Gunther presented for discussion the clinical history of a very interesting case of goitre in pregnancy.

The society showed its interest in local affairs by drawing up a set of resolutions protesting against the arbitrary raise in telephone rates made by the Citizens' Telephone Company and instructed the secretary to present them to the Mayor and Common Council.

The following resolutions concerning life insurance examination fees were unanimously adopted:

I. That the following preamble and resolutions are adopted by this society in session at Sheboygan:

WHEREAS, Many of the life insurance companies have notified their medical examiners of reduction of examining fee from $5 to $3; and

WHEREAS, We, as physicians, realizing the responsibility incident to proper examination of the individual, believe such reduction to be unjust; therefore, be it

Resolved, That the Sheboygan County Medical Society, and the medical profession in sympathy with them, in session assembled, do hereby declare such reduction to be unjust, and respectfully request that no physician legally authorized to practice medicine in Sheboygan County accept such reduction of fee; and further, that any physician accepting such reduction be guilty of a breach of professional courtesy.

Resolved, That it is the sense of this Society that hereafter in each examination for life insurance in which urine analysis is required the minimum fee shall be $5.

Resolved, That the several component societies forming the State Association be requested to adopt these resolutions.

II. That the above rates shall not apply to industrial medical inspections, without urinary analysis, for amounts less than $1,000.

III. That no member of this Society enter into any contract or agreement with any corporation, society, association, company or individual, to examine applicants for insurance for any stated salary or lump sum, thereby evading the spirit and instinct of the foregoing resolutions.

IV. That the payment of all fees shall be authorized by the home office of the society or corporation to which such application is made, and under no circumstances shall an examiner receive or accept any part of this fee from an agent or any other person or corporation, unless the full fee be paid by authority of the home office.

V. That each member of this Society pledge himself or herself, in case a fellow-member be removed from the position of examiner for any corporation or society solely because of this action of the medical profession, that he or she will not accept an appointment from such corporation or society as examiner, nor make any examination for same in Sheboygan County.

VI. That each member of this Society bind himself or herself, by a pledge to be presented by him or her to the Secretary, to abide by these resolutions.

VII. That these resolutions be printed in our State Medical Journal and a copy forwarded to *The Journal of the American Medical Association.*

(Signed) W. F. ZIERATH, *Secretary and Treasurer.*

An amendment to Section 1, Chap. III, of the by-laws was presented and is to be voted on at the next meeting.

The amendment is as follows: "No officer shall hold the same office for two successive terms."

Our society is in a most flourishing condition and its monthly meetings are well attended. At each meeting a paper is read, the literature of the past month reviewed, and a clinical case presented.

W. F. ZIERATH, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

At the Annual Meeting held January 8, 1907, the following officers were elected: President, Dr. G. J. Kaumheimer; 1st vice-president, Dr. Ralph Elmergreen; 2nd vice-president, Dr. T. L. Harrington; secretary, Dr. G. A. Carhart; treasurer, Dr. R. C. Brown; librarian, Dr. J. D. Madison; curator, Dr. A. W. Akerly.

The reports of the officers show the society to be in a most flourishing condition with the largest membership in its history.

MEETING OF JANUARY 22, 1907.

Dr. H. V. Würdemann presented several interesting clinical cases illustrating the usefulness of electricity and massage in the treatment of eye affections.

Dr. P. F. Rogers exhibited a specimen of scirrhous carcinoma of the left breast with numerous metastases mainly involving the left side of the thorax, while the primary growth had been in the right breast. The right thoracic cavity was almost free.

Dr. F Shimonek reported a case of carcinoma of the ascending colon.

G. A. CARHART, M. D., *Secretary.*

FOX RIVER VALLEY MEDICAL SOCIETY.

Report of committee appointed at the annual meeting of the Fox River Valley Medical Society, to draft resolutions in memory of Dr. James T. Reeve, who died at Appleton, November 4, 1906:

WHEREAS, Since the last meeting of this Society, death has entered its ranks and taken from its membership one of our oldest and most respected brethren, Dr. James Theodore Reeve, and

WHEREAS, This Society, of which for many years he was a member, desires to express its profound regret for his loss and a tribute to his memory, therefore be it

Resolved, That we, its members assembled at this annual meeting, will ever cherish the memory of his many admirable qualities of mind and heart, his friendship, his cheerful presence, his courteous bearing towards all of his professional brethren, his pure, unselfish life, his honorable record as a high-minded citizen, a skillful physician and a loving husband and father.

Resolved, further, that we deeply regret his loss, not only for this Society and the medical profession at large, but for his fellow citizens, and, most of all, for his family to each member of whom he was so dear, and that we extend to them our heartfelt sympathy.

Resolved, That these resolutions be spread upon the records of this Society and that a copy of them be forwarded to the bereaved family.

B. C. BRETT,
A. W. SLAUGHTER,
D. J .O'CONNOR, *Committee.*

Green Bay, Wis., January 15, 1907.

THE WISCONSIN
MEDICAL JOURNAL
MARCH, 1907.

ORIGINAL ARTICLES.

STATIC FOOT DISORDER.*

BY HOYT E. DEARHOLT, M. D.,
MILWAUKEE.

Ever since I undertook the writing of a paper on foot disorders I have been in a quandary as to just how to approach the subject. The voluminous work of German, English, and American authors has covered the field so completely that even an abstract of the important material would be impossible in a brief paper. The work, moreover, has been in a special department of surgery and in a department which has apparently little interest for the general practitioner. It has seemed to me, therefore, that I could succeed best in this paper by confining my entire effort to an attempt to stimulate an interest in the minds of practitioners toward a series of conditions that my experience has led me to believe are almost completely misunderstood.

Considerable confusion has arisen from the application of names founded on an anatomical basis for conditions which are in reality physiological. I am thinking particularly of the name flat-foot, which is commonly used to denote a symptom-complex which is not necessarily due to flattening of the arch, but may on the contrary be found in many conditions. For this reason I have chosen the broad title Static Foot Disorder, as affording an opportunity for covering all possible errors in weight-bearing not primarily due to congenital or acquired faulty structure.

When carefully studied, the normal foot is found to be a wonderfully constructed mechanism, embodying an infinite variety of useful qualities. Its primary function is to act as an engine of propulsion

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with an almost equally important use as a mechanical base or pedestal. The foot occupies a more important position in the anatomy and physiology of man than in any other creature. With but two feet, and these small when compared to total size and weight, the human body is maintained in an erect position without assistance, under ordinary circumstances, of other extremities or of natural gravity balance. In addition to the function of propeller and base, the foot, by its segmented formation, is intended for a spring buffer, and by its elasticity does protect the contents of the skull, thorax, and abdomen from the injury of sudden jolts and jars.

In primitive man the foot meets every demand made upon it, and it is only with civilization that its uses become restricted and only then that these uses are accompanied by so much friction as to be in many instances almost unbearable.

The transition from the competent foot of primitive man to the deformed, painful and comparatively useless foot of civilized man is a deplorable but natural one.

Strength is acquired and maintained only by exercise. The first requirement for exercise is opportunity, the second is motive. The foot was never intended for encasement during activity in an unyielding shell, which shell is usually fearfully and horribly formed to resemble anything rather than a normal foot. Even the lines of an abnormal foot are not considered, for fashions in shoe-shapes change more radically from year to year than do the lines of our garments of soft fabric. A foot under these conditions is not alone denied the opportunity for normal healthy exercise, but is in addition, required to functionate in the most unnatural positions. It is not logical to suppose that a high heel under a boot promotes the welfare of the foot inside, otherwise we could reasonably argue that nature had provided one.

Weight, which in the bare foot is borne chiefly by the strong posterior segment, is in the stilted foot thrown forward upon the active spring segment. The natural result of this improper transposition of weight is undue strain upon that portion of the foot which was constructed not for weight-bearing but for propulsion; and the wonder then is, not that feet do not stand the burden better, but that they stand it as well as they do.

In our present civilization with its motor cars, telephone, and other labor-saving devices, the necessity for physical exertion is becoming progressively less and less. Brains are taking the place of muscles in the competition for existence, and it is not strange, therefore, that the physique is not brought up to that degree of resistance

which makes it possible to withstand prolonged strain. Given a foot with restricted opportunity for exercise, combine with this conditions which promote flabbiness of muscles, increased body weight, an improper attitude in walking and standing, debilitating illness and trauma, and a breaking of the foot under the strain is a most natural sequel. Convention, by substituting certain faulty habits of standing and walking which are opposed to natural positions, is also responsible for a great amount of consequent debility.

I want to say emphatically at this point, that the regulations of the army and the various gymnastic regulations which have grown from or with the army regulations, are entirely wrong in the position demanded of the feet in activity. The active position of the foot is not with the toes turned out at an angle of 60 degrees, but is on the contrary, with the feet parallel. The position of rest and the position of a broken foot are similar, and every effort should be made to maintain in activity an attitude opposed to rest and to broken arches. Too many misguided directions are given to children, to turn the toes outward in standing and walking, and feet that would have grown into strong active members have become disposed to future disorder.

The weight-bearing error is usually manifested in one of the following conditions:

1. Weak ankles of childhood;
2. Weak foot without demonstrable flattening;
3. Pronated foot or knock ankle, a condition in which the foot appears to be rolled out from under the leg and toward the median line of the body. Often no actual flattening of the arch can be found.
4. Flat-foot, usually accompanied by pronation and eversion of the fore-foot.
5. Anterior metatarsalgia or Morton's disease, a painful affection due to weakening of the transverse arch.
6. Shortened muscles and tendons, notably the posterior calf muscles and the perineals, which shortening limits respectively dorsal flexion and adduction.

SYMPTOMS.—The predominant symptom of static foot disorder from the standpoint of both the patient and physician is pain, pain co-incident with and dependent upon ordinary use of the foot. The localization of the pain is of slight importance in establishing the general diagnosis of static foot disorder. It may not occur in the foot at all, it may be associated with pain in the calves of the legs, in the knees, in the hips, and in the back; it may be localized at any one of these points to the exclusion of the others. The pain is usually in-

fluenced by atmospheric changes but never by anti-rheumatic medication.

After complete rest, the first few steps cause unusually great discomfort, which discomfort is greatly aggravated by uneven footing. The amount of pain varies from a condition of slight discomfort, with an unwillingness to indulge in exercises involving activity of the feet, to a condition expressed by the most exquisite agony. Few conditions that a surgeon is called upon to treat may be more painful.

It is usually difficult to get from the patient a distinct localization of the pain in the foot. The most common position is in a line radiating downward from the summit of the arch, in other instances the pain radiates upward along the dorsum of the foot beginning at the transverse arch, usually at the fourth metatarso-phalangeal articulation.

In some instances pain may be entirely limited to the bearing area of the heel, and in these cases sensitiveness can be elicited by pressure directly over the insertion of the plantar fascia into the internal tuberosity of the os calcis.

Secondary symptoms are often present, developing with and consequent to the disordered foot condition. The reluctance of the patient to indulge in exercise, often brings on a condition suggesting premature senility. Constipation, dyspepsia, headache, lassitude, neurotic pains and aches, may be so prominent as to completely overshadow the primary foot condition.

DIAGNOSIS.—Diagnosis should present no difficulty in the vast majority of cases, to the competent physician. Pain due to static foot disorder is commonly and persistently attributed to rheumatism. This error has been made so often in cases seen by me, that I am almost willing now to make a long shot diagnosis that "rheumatism" limited to the feet is not rheumatism. Pain limited to the bearing surface of the heel and not relieved by weak-foot measures should raise a suspicion of gonorrheal exostosis.

EXAMINATION.—Don't take a tracing or impression of the sole of the foot. This sign has led to more fog in diagnosis than it has ever cleared. A foot may be pronated almost to the point of subluxation and still give the imprint of a normal arch. A foot may be absolutely flat and interfere little or not at all with its function.

While the patient is removing his stockings examine his shoes for evidences of wear in unusual locations. The attitude in standing and in use should be studied first. Observe whether the foot has the appearance of being rolled out from under the weight it is designed to carry, whether it appears longer than normal, the amount of ever-

sion, and lastly, the presence or absence of flattening. Hyperidrosis, or excessive sweating, is often a symptom of static disorder for which the patient is likely to apologise when the surgeon is examining the foot. By inspection, the contour of the foot is compared with normal standards, and calculations may be made on the influence that corns and bunions have on the weight-bearing habit. Local temperature is likely to be lowered, giving to the examiner's hand a sensation suggesting lifelessness. The voluntary movements should be examined, dorsal and plantar-flexion, pronation and supination, eversion and inversion. The study of the movements of the foot proper is more exact when the heel is firmly held by the examiner. By passive motion the surgeon tests for limitation of motion and for evidence of pain when the foot is moved within normal limits. Firm palpation elicits points of local tenderness. A distinct crepitus is heard when a rigid flat-foot is firmly adducted.

It has been my constant desire to refine the diagnosis of Static Foot Disorder and to find certain symptoms or signs that could be dogmatically laid down as positively indicating the condition. Increased experience, however, has lessened my dogmatism except in this respect, that any patient who complains of pain in the foot, legs, or back, which pain cannot be accounted for by the existence of some primary general or local condition barring neurasthenia and hysteria, should be suspected of weight-bearing error. A careful examination may fail to reveal any positive evidence, but in case there is a fairly well founded suspicion, the empirical application of a properly adjusted adhesive plaster strapping will often, by a prompt improvement in the symptoms, confirm the provisional diagnosis.

TREATMENT.—The treatment of static foot disorder is specific, as specific as the treatment of syphilis or malaria. We are given a definite mechanical disorder which is to be rationally met only by the rational application of mechanical measures.

The ideal of treatment is the complete restoration of the foot structurally and functionally. Any result short of this ideal is not a cure. As has been said before, acquisition of strength is only possible by exercise, therefore the use of foot gymnastics plays an important part in the therapeutics.

The exercises I commonly use follow:

1. With the toes together and heels separated as far as possible, the patient springs quickly upon the tip-toe, after which the heels are allowed to sink slowly to the floor. The exercise is repeated from fifteen to fifty times.

2. With feet in same position as in No. 1, the patient walks around the room on tip-toe until thoroughly tired.

3. Active and passive movements in all directions with and without resistance are ordered. Particular attention is given to supination and inversion.

4. Walking on outer margin of feet, attempts are made to increase supination and inversion by voluntary effort.

In addition to the above exercises repeated two or three times daily in stocking feet, the patient is urged to constantly maintain the best possible attitudes; to rise from time to time on tip-toe, and to spring now and then upon the fore-foot. Careful instructions on the proper method of standing and walking are given.

The above measures alone have resulted in the complete cure of many cases of weak ankles, weak feet, pronated feet, and even of exaggerated rigid flat-foot.

Massage and Heat.—The application of massage is of positive value in the relief of pain and assists materially in overcoming structural rigidity and muscular resistance. Extremely hot foot baths should not be used when adhesive plaster strapping is being employed, because of the increased susceptibility of the skin to irritation.

Support and Rest.—Feet are commonly so painful, and the evidences of strain may be so severe, that complete rest may be required for some time. The arches may be held in a comfortably corrected position by adhesive plaster strapping, and gymnastics and use postponed until all inflammation has subsided.

Nearly all cases seen by the surgeon require arch support for variable lengths of time, and zinc oxide adhesive plaster supplies an almost ideal temporary bandage. Regarding the method of application, my own preference is for one inch strips applied upon the corrected foot held in over-corrected position starting from a line below the external malleolus, passing beneath the arch and up the inside of the leg to a line short of the knee, and there firmly held by a circular band around the leg. A figure of eight adhesive plaster bandage may be applied about the ankle if additional support is desired. A snugly applied gauze roller will hold the adhesive plaster in place and will at the same time protect stockings and underclothing from the adhesive gum.

Where support of the arch must be continued beyond a few days or weeks, a more permanent appliance must be provided. The ready-made metallic plates dispensed in the shoe-shops and by the surgical instrument makers are usually inefficient, because it is only accidentally that they afford the desired support. In the majority of cases

it is only by providing a metallic plate faithfully wrought over a corrected plaster cast, that the surgeon can obtain that accurate application of mechanical leverage which will satisfactorily relieve and permanently cure the affection. The most satisfactory design in my own hands has been that of Royal Whitman, modified to meet the indications of each case under treatment.

A rigid flat-foot must be transformed into a weak foot before permanent support is attempted. This is usually accomplished by manual modelling, is severe cases in one sitting under general anesthesia or in several sittings without anesthesia. Subsequent treatment is the same as employed in the treatment of weak foot.

Cases of muscle and tendon shortening which do not respond to bloodless stretching require tenotomizing, after which they respond promptly to ordinary measures.

Metatarsalgia requires support under the transverse arch. Because weakening of the longitudinal arch has been associated with the weakness of the transverse arch in most of my cases, I have employed a sole plate, extending from under the heel to the metatarso-phalangeal articulation, designed to support the entire foot.

The following histories have been carefully selected and abbreviated for the purpose of illustration:

K. W., 13½, schoolgirl, was seen in consultation to examine spine for evidence of Pott's disease, which disease had been diagnosed by two individual physicians on separate examinations. The patient had been confined to bed for four months because of pain in abdomen and back. Previous removal of appendix had afforded no relief. Pain in knees was also complained of. Upon examination, the spine was found to be normally mobile and there was no evidence of kyphosis. Until attention was called to the feet, the condition was believed to be hysterical, particularly as there were symptoms undoubtedly of neurotic origin. Both feet were found to be rigidly flat with marked pronation and eversion present. I have seldom seen a case of such extreme and resistant flat-foot in a child of this age.

It was believed that the foot condition was sufficient to account for all the symptoms, and treatment was instituted accordingly. The rigidity and flattening of the feet were forcibly overcome in several sittings by manual modelling. Massage was successfully used to overcome voluntary and involuntary muscular resistance and was further very useful in relieving pain. Each gain was maintained by adhesive plaster strapping until the arch was brought back to nearly the normal index, when a Whitman plate was made for permanent support. Foot gymnastics, together with a few additional gymnastic exercises to

bring up the general muscular tone, were begun under personal supervision. Considerable improvement was manifested at once and complete relief from symptoms soon followed. Subsequent reports on the patient, who lives too far away to be personally seen, are most favorable, and indicate a complete cure, which means relief from the necessity of wearing any support whatever.

Case 2.—Mrs. L., aged 46, married, housewife, weight 189, typifies that class in which the proper ratio between burden and bearing-capacity has been lost. Pain, beginning at the transverse arch and radiating upward along the dorsum of the left foot has been so severe for nine years as to practically preclude those activities which involved standing and walking.

When examined in rest position, the foot showed little evidence of disorder; but when subjected to weight-bearing, a distinct spreading of the fore-foot was apparent. A pad placed under the transverse arch for diagnostic purpose increased the pain, evidently aggravating the already present strain on the longitudinal arch. This pad was removed and an adhesive plaster strapping, applied to hold the longitudinal arch intact under burden, was substituted. Pain was completely and immediately relieved and did not recur until the strapping became loosened. A steel plate, extending from the heel to the metatarso-phalangeal joint, designed to support both longitudinal and transverse arches was made over corrected cast, and has afforded complete relief from symptoms. The support is still worn and will probably continue to be because of the contentment of the patient.

Case 3—L. C., young woman aged 18, complained of pain in the lumbar region of the back. Examination of the back was negative. Substitution of lower-heeled shoes completely relieved a condition commonly diagnosed as neurasthenic spine.

Case 4—Seen incidentally while visiting a prominent railroad surgeon. The man, a railroad brakeman, had been thrown from a car and sustained a severe traumatic breaking of the longitudinal arch. Considerable swelling and ecchymosis had been present. The patient was discharged with directions to keep the foot bandaged for a time. Nothing was said of a rigid arch support and the patient probably suffers to this day from a chronic flat-foot. A properly fitted metallic plate would have hastened complete recovery.

THE MEDICAL ASPECTS OF EXOPHTHALMIC GOITRE.*

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While we have no reason to suppose that exophthalmic goitre is a disease of recent occurrence, it is only within the last seventy years that it has been recognized as a separate disease entity. In England the credit of priority in the recognition of the disease has been given to Graves, of Dublin, and it is known there by his name, he having published an account thereof in the London Medical and Surgical Journal in 1835. In Germany Von Basedow published another account of the disease in 1840 in Casper's Wochenschrift, and in that country the affection is known as Basedow's disease. The fact is, however, that an English physician by the name of Parry was the earliest observer of whom we have any present record, of this disease. He saw a case as early as 1786. He wrote on the subject soon afterward, but his writings were not published until 1825 when he was dead. Wickham Legg found another case described by an anonymous writer in 1816 in the Medico-Chirurgical Journal and Review. Basedow and Virchow have also found earlier cases described which they believed to be of this nature.

Wickham Legg[1] in a recent review of the subject affirms his belief that Basedow's account of the disease in 1840 was not an advance on the work of Graves but rather that it was a retrograde step, inasmuch as his attention was too much fixed "upon the prominent eyes, leaving the heart and the thyroid too much in the background." Indeed he proposed calling the disease Glotzaugen-Cachexie.

Marsh and Stokes followed Graves with rather full accounts of the disease in which stress was laid upon the cardiac and nervous symptoms with the accompanying goitre and exophthalmos. Ever since the publication of these early observations the literature of the subject has been growing in extent, and, especially during the last ten or fifteen years there has been so great a mass of it, that the article on exophthalmic goitre in the Twentieth Century Practice of Medicine contains 73 references and that in Allbutt's System contains 290.

The pathology of exophthalmic goitre is uncertain, difficult and obscure, and at this time is engaging the attention of students in every part of the civilized world. The subject involves a study of the minute anatomy of the thyroid gland and of the parathyroid bodies as well as

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the thymus gland together with their physiology, and it involves further an inquiry into the possible, or perhaps, more properly speaking, probable influence of nervous centers upon the thyroid secretion and blood supply to the gland, and the determination as to whether the primary disturbance is not in these centers or in sympathetic ganglia as many neuropathologists are convinced is the case.

These questions are too technical and too far from ultimate solution to permit of discussion in a paper which is intended mainly to direct attention to the medical treatment of the disease.

It seems, however, necessary to briefly review some of the etiologic and pathologic aspects of the disease in order to lay a foundation for a proper understanding of the various and diverse plans of treatment which have been lauded from time to time in the text-books and in the periodic literature of the day.

The clinical course and symptomatology present so many varieties and terminations as to force irresistably upon us the conclusion that the pathology is not the same in every case; in this respect reminding us of the course and terminations in Landry's disease and in Bright's disease. Thus in one case the typical aspects of a fully developed case of the disease are evolved almost in one day as the result of a nervous shock. In the case of one of my patients the disease developed thus quickly when the husband threatened to shoot her and pointed a loaded revolver at her head. In another set of cases the disease develops slowly and insidiously without tangible cause.

The correctness of the view that the pathology is not the same in every case is further indicated by the apparent cures that have resulted from the application of treatment wholly different.

The literature of the subject is filled with reports of cases that have been successfully treated on a variety of different theories as well as upon no theory at all, that is, having been treated symptomatically and without regard to possible or probable cause or pathology.

There is a strong tendency of late to regard the neuroses as evidences of some form of toxemia. It is set forth that for the proper performance of its functions the nervous system needs to be bathed in, and nourished by, a proper supply of a properly constituted blood; that if we experimentally introduce into the blood stream, for example, morphia, there immediately ensues an abnormal series of nervous phenomena which may be likened to certain functional disturbances with which all are familiar.

It may be supposed that exophthalmic goitre may be the result of a toxemia, at least in some instances, in which it may be presumed that the blood contamination renders the nervous system specially

susceptible to certain influences that result in nervous trepidation, emotion, or fright.

As a consequence of the supposed toxemia it might result that the cerebral centers controlling the nutrition of the thyroid and regulating its blood supply would be so influenced in their function as to cause the anatomic changes found in this gland post mortem. That these cerebral centers may be constitutionally weak and predisposed to functional disturbances may be assumed from the circumstance that a neuropathic personal or family history is so commonly noted in the victims of this disease.[2] In a person thus constituted emotional strain, infections, and toxemias in general or any of the combinations of these influences, would further weaken these centers and predispose to the disease. Two cases have been reported[3] which were attributed to the influence of iodine, one of which promptly recovered on the discontinuance of the drug, the other remaining permanent. These cases are cited in support of the assumption that certain cases of the disease may be due to some form of toxemia. Other similar cases have been reported.[4] As a further evidence that the disease may be primarily due to some form of toxemia may be mentioned the fact that many cases develop during convalescence from acute infections as scarlatina and measles. Two of my cases occurred immediately following a severe attack of influenza.

Bouchard[5] succeeded in producing exophthalmos in rabbits by injecting urine into their veins. He produced similar results by intravenous injection of the blood serum of rabbits into other rabbits.

These facts have led to treatment directed to the elimination of iodine, and the sodium sulphanilate has been recommended for this purpose by Ehrlich and Kroning and has been used in a number of cases[6-7] which have been reported, but the testimony on this point is to the effect that the drug is of no value.

Normally the thyroid contains a large amount of arsenic[8] and as arsenic tends to prevent or antidote the effects of iodine, this drug has been used in the treatment of exophthalmic goitre. Murray[9] reports favorable results from its use but insists that it must be given for a long time, 10 or 12 months at least. In this connection it may be stated that Mabille[10] produced palpitations, lumbar pains and tremor in a woman who was suffering from goitre, by the administration of iodothyrin. These symptoms subsided on withdrawing the drug. Later he gave larger doses than before to the same patient, but gave at the same time 12m. of Fowler's solution. The above symptoms did not then develop. In experiments on animals it has been found that iodism is not produced when arsenic is given simultaneously.

It has been shown[11] that the thyroid secretion increases the elimination of phosphoric acid so that in myxoedema there is lessened excretion and in Graves' disease there is an excessive loss of phosphoric acid. This fact suggested to Kocher the internal use of phosphate of sodium in Graves' disease and he has reported beneficial results from such use. Others,[12] however, have failed to confirm these favorable results, although Moffitt[13] found that it controlled tachycardia and nervous unrest in many cases.

Chas. G. Chaddock[14] of St. Louis, following the plan of treatment suggested by Babinski of Paris, has treated a number of cases with a pure salicylate of sodium, 10 to 15 grains three times a day. He states that improvement followed in every case and that the improvement was marked and striking, all of the symptoms subsiding in every case. No theory was advanced as to the modus operandi of the drug, but if, as is thought by some,[15] the disease is, in some cases at least, due to toxemia of intestinal origin and to be benefited by that which tends to lessen intestinal putrefaction, then the sodium salicylate[16] may be thought to act in this way, as well as by stimulating excretion through the other eliminating organs of the body, especially the skin and kidneys as well as the liver.[17] Since the appearance of Chaddock's paper in 1903, I have seen no further references in the literature to the use of sodium salicylate in the treatment of this disease, but have myself used it in nine cases. Owing to the exceedingly favorable reports made by Chaddock as well as by Babinski, I was induced to try this plan of treatment, not, of course, omitting hygienic means at the same time. Of these nine cases, four were severe and typical, presenting all the classical symptoms in an aggravated form. Five of the patients were women, the youngest being 13 years and the oldest 55 years of age. The other four patients were men, and this seems an enormous proportion of male patients, the common experience being[18] that the disease occurs from two to four times more often among women than among men. Two of the men presented all the symptoms of the disease in an aggravated form as did also two of the women.

Of these nine cases, treated with the sodium salicylate, five recovered completely, two have been lost sight of and two died. This would represent a mortality of 20 per cent., which is not excessive when it is recalled that it is said that only about 40 per cent. recover. Tyson[19] says that in a considerable experience he has known but one patient to die of this disease, but admits that many of his cases have been lost sight of.

Of the five that recovered, one was a woman 55 years of age who

presented a typical picture of the disease in a severe form. She has now been well for nearly three years. The other four were more or less typical cases, such as are very apt to escape recognition.[20]. In three cases goitre and tachycardia were present without exophthalmos or tremor; in another, exophthalmos and nervousness with mild tachycardia and small goitre were present, and in two nervousness, tachycardia and small goitre were present without exophthlmos. In all these cases except one, apparent recovery followed the salicylate treatment and has remained permanent in all.

The two cases lost sight of were as follows: one, a male, aged 26 years, whose disease developed during convalescence from a severe attack of influenza. This was a very severe case and made no improvement whatever under sodium salicylate. I learned that he afterwards received thyroidectin but do not know with what result. The other, a female, who had a small goitre, nervousness and tachycardia, without exophthalmos, improved for some time under the treatment but was not well when lost sight of.

It is, of course, not possible to draw any far reaching conclusion from these few cases, but the net result has been that only one severe case was benefited by the drug and in that case the cure has persisted for nearly three years; that in the atypical cases benefit resulted in all except one.

The case not benefited presented the same set of symptoms, nervousness, tachycardia and small goitre, which were present in another case in which improvement was marked following the use of the salicylate.

On the whole it may be said that the results have been sufficiently encouraging to warrant the use of the drug in cases of this sort, the chances of improvement being greater in cases in which the symptoms are mild or atypical than in severe ones.

There is no reason at all to expect any improvement under this system of treatment where the disease is due to degenerative changes such as have been described in the ganglion cells of th sympathetic,[21] and which result in increased vascularization of the thyroid and consequent hypertrophy. It is in cases of this kind that sympathectomy has been successful. Jonnesco[22] of Bucharest affirms that bilateral resection of the cervical sympathetic relieves the symptoms in the great majority of cases.

It is manifest, of course, that in the cases treated successfully by means of the salicylates as well as by other remedial agents of a like nature, there can be no structural lesions such as have been found in the sympathetic ganglia as above, nor any such lesions of the para-

thyroid body as have been described by McCallum.[22] Shattuck[24] has also described lesions of the parathyroids found at autopsy in fatal cases of Graves' disease. McCallum has shown experimentally that destruction of the thyroid alone produces disturbances of metabolism such as occur in myxoedema, whereas destruction of the parathyroids alone produces acute and rapid fatal nervous phenomena.

In consequence of the above parathyroid findings, McCallum[22] and Shattuck[24] as well as Walsh[25] have treated a number of cases of exophthalmic goitre by means of parathyroid feeding. Thus far, however, it cannot be said that the results have been satisfactory.

During the past few years much has been learned concerning the internal secretions and their physiologic purpose, and there appears to be a growing tendency to the view that the ductless glands—the thyroid, thymus, parathyroid, adrenal glands, the pituitary body, etc., —exercise a certain kind of influence over the activity of each other. This seems to be specially true of the thyroid and the adrenal glands,[26] the view being entertained that the thyroid secretion either directly or indirectly exerts a stimulating effect upon the adrenals.

The general effect of the adrenal secretion is to stimulate and increase oxidation. If the thyroid is overactive in its function as is believed to be the case in exophthalmic goitre, the adrenals will be stimulated to overactivity, and this overactivity will be indicated by headache, irritability of temper, excitability, capriciousness, hallucinations, mania, epileptiform convulsions, unusual muscular metabolism and consequent muscular fatigue manifested by fibrillary tremor, increased heart action, exaggerated tendon reflexes.[26] This series of symptoms corresponds very well with the semeiology of exophthalmic goitre during the earlier course of the disease.

If the adrenal overstimulation continues, a time finally comes when exhaustion ensues and we then have the evidence of adrenal insufficiency; depression of spirits often to the point of melancholia, loss of muscular power, paretic tremors, and in some cases hemiplegia or other forms of motor paralysis, pallor, general marasmus, sweatings, leucoderma, scleroderma or bronzing, the ocular symptoms known as Von Graefe's and Stellwag's signs, weak, rapid and irregular pulse and the general evidence of impaired nutrition.[26]

We have then as terminal symptoms in exophthalmic goitre many of the features of Addison's disease—circulatory enfeeblement, bronzing of the skin,[27] gastro-intestinal crises[28] consisting of apparently causeless attacks of vomiting and diarrhea coming on suddenly and not amenable to treatment.[29] We also see as terminal features of the disease, after adrenal insufficiency supervenes, a curious association

of the symptoms of myxoedema. Sollier[30] has reported some cases of this kind, one of which exhibited pigmentation of the skin. It is undoubtedly cases belonging to this class that have been improved or apparently cured by the use of thyroid extract.[31] Silex[32] reports the case of a woman aged 42 years who was suffering from the disease, in a very severe form. She recovered after taking 1200 grains of thyroid extract. Many similar cases are to be found reported in recent literature.

The report of cures under thyroid extract medication has resulted in great harm, for there is no treatment so generally instituted as that by means of thyroid extract. Nearly all of the patients in my series who had been under previous treatment had received the substance. The same observation has been made by others.[33]

The general opinion of clinicians was, for a long time, that the blood pressure in this disease is low. The impression one derives from a study of the pulse is that the arterial tension is low. With the advent of the sphygmomanometer more accurate studies have been prosecuted in this direction, but the results thus far reached are said to be inconclusive.[34] According to published observations the blood pressure shows no constant changes in either direction in exophthalmic goitre, some cases presenting abnormally high tension and others hypotension.

If the adrenal glands play the part that we have supposed that they do in this disease, then we should expect high blood pressure during a considerable part of the clinical course, that is during the period of adrenal overactivity, and a lower or low blood pressure when adrenal exhaustion has supervened. We are not able to judge from the records accessible at what stage of the disease blood pressure observations have been made.

In my own cases, blood pressure records were only made in four instances. There were all severe cases, three of them especially so. The records are as follows:

Mr. G., aged 26 years, pulse 130, pressure 160mm. (5cm.)

Mr. R. S., aged 26 years, pulse 90-110, pressure 170mm., (5cm.)

Mrs. A., aged 25 years, pulse 150, pressure 160mm. (5cm.)

Mrs. B., aged 35 years, pulse 150, pressure 200mm. (5cm.)

The fourth case proved fatal four months after the observation. Several records were made in each case except the last one in which instance the patient was seen but once.

It would have been interesting if it had been possible to continue the blood pressure observations through the whole course of the dis-

ease, especially in the case which went on to a fatal termination, for in that case death was due to deepening asthenia.

Based on the supposed relationship between these various ductless glands organotherapy has been resorted to. McKenzie,[35] Murray[36] and Dock,[37] have treated the disease by means of thymus gland preparations, but their results do not appear to have been at all encouraging. Murray[36] has also reported cases treated by suprarenal tablets and has thought that benefit was derived in some of them.

Following the introduction of thyroid extract into therapeutics, this substance was used quite freely in the treatment of Graves' disease and many cures were reported,[31] but other cases appeared to be aggravated thereby, as has already been stated. Sajous[26] discusses this question and quotes Moffhaft, who had a patient that took thyroid extract for the reduction of his weight. He was 43 years of age and took the extract on his own responsibility. He took 5000 grains in five weeks. For three weeks he lost weight steadily, then there followed rapid loss of flesh, enlargement of the thyroid, marked exophthalmos, Von Graefe's and Stellwag's signs, tremor, tachycardia (pulse 120), polyuria and glycosuria. The thyroid tablets were discontinued, Fowler's solution given and recovery was complete in six months. Since it has come to be recognized that the disease is accompanied by an excessive thyroid secretion, the use of thyroid extract in its treatment has been abandoned by all who understand the nature of the disease, although it is still thoughtlessly prescribed by many.

Antiserums have been much sought after of late years and a number have been used and reported on. Murray,[38] influenced by the work of Lepine, who immunized goats by feeding them on increasing doses of thyroid glands of sheep and goats, immunized or at least partially immunized rabbits by feeding them on thyroid extract. He treated two patients with the serum of the rabbits so fed but the results were disappointing.

Lademan[39] treated a patient with the milk of a thyroidectomized goat. Three pints of the milk were given daily. The result was that the patient gained in weight, the pulse fell from 160 to 115 per minute, and the circumference of the neck was diminished by 3cm. Lanz had previously (1894) reported improvement in 6 patients fed on the milk of thyroidectomized goats, and later in 1903 reported additional cases similarly treated and with favorable results.[40] In these cases the improvement continued after the treatment was discontinued. One of the patients was in the terminal stages of the disease and made an apparent full recovery.

Moebius' serum, made by Merck, is derived from the sheep. The

animals are thyroidectomized and after several weeks they are bled and the serum used. There is now considerable literature on the serum of Moebius and in the main the reports are favorable to its use.

Sainton and Pisante[41] in particular have found that all the symptoms were ameliorated. They administered both the blood and the blood serum of thyroidectomized sheep but prefer the serum, the same being given by the mouth rather than subcutaneously. The dose which they found effective was 5 to 10 drops.

Kuh[42] has treated nine cases in the past 5 years with the serum and, while he has observed marked improvement in many cases, his conclusion is that the status of the serum treatment is still unsettled and its curative effect is very problematical.

Thienger[43] reports a number of cases treated similarly some of which were benefited and some remained unchanged.

The serum treatment, dating from 1894, when Ballet and Enriquez first thyroidectomized dogs, has met with very considerable success, but the application of the treatment has always been attended with considerable inconvenience. In the meantime the pharmaceutical houses have put upon the market a dessicated blood product from thyroidectomized animals known as thyroidectin.

This substance has been used now quite extensively. Dock[37] reported seven cases thus treated, all of which improved. He states that in addition to the thyroidectin he also gave strychnine and sodium phosphate. One patient took 900 tablets in a year, and retrograded whenever the tablets were omitted. Schultes[44] has also reported favorable results from the use of thyroidectin, in one case the patient being regarded as entirely well in 7 weeks.

I have treated two cases during the past year with thyroidectin. One patient was a man aged 26 years, pulse ranging from 88 to 96 per minute, small goitre, very nervous and presenting Von Graefe's sign, though there was no real exophthalmos. In this case the disease followed a severe attack of influenza. Under thyroidectin treatment all the symptoms disappeared in the course of three months. He took strychnia, however, as a part of the treatment. The other patient was a woman aged 33 years, married. This was also a rather mild case, and the woman recovered completely by the end of five months. She also took strychnine. In this connection it may be stated that cures have been attributed to strychnine alone. Tyson[19] relates that an acquaintance of his, Dr. J. H. Hunsberger of Skippack, Penn., extols the virtues of this drug and claims to have seen complete recovery follow its use in the form of tincture of nux vomica in doses up to 50 drops three times a day for several months.

Thyroidectin has not been in use long enough to establish its value on any firm foundation, but on the whole the reports are encouraging although there are those[45] who have been disappointed in its use and take a gloomy view of its efficiency.

Latterly the Roentgen rays have been resorted to in the treatment, empirically, of a great variety of diseases, not only of the skin but also of the deeper seated organs.

Warthin[46] in a recent paper gives a rather complete resumé of the recent literature of X-ray treatment of blood diseases and discusses in detail the results of experiments with the X-ray upon mice, rats, rabbits, Belgian hares and guinea pigs. The results may be summed up as follows: a destruction of the lymphoid cells of the lymph-glands, a destruction of the cells of the large lymphocytic and myelocytic types in the bone narrow, a destruction of the lymphoid tissue of the spleen, and a destruction of epithelioid cells. The cellular changes consist of nuclear disintegration, fatty degeneration and necrosis. These degenerations may be followed by secondary regenerations. I am not able to find any experimental work with the X-ray upon the thyroid gland, but there are now quite a large number of cases recorded in which it has been applied in the treatment of exophthalmic goitre. Görl[47] has treated 8 cases, in all of which improvement followed. Beck[48] treated two patients both of whom had been partially thyroidectomized, in one case 13 months and in the other 18 months previously, without much improvement. Under the X-ray the improvement was so marked that he applied the treatment in a third case in which a partial thyroidectomy had just been performed. At the end of one week the pulse had fallen from 160 and 180 per minute to 80, and at the end of five months no signs of the disease were to be found. Pfahler and Thrush of Philadelphia[49] report an additional case which after three months' treatment with the X-ray was free from evidence of the disease and at the time of the report, five months later, remained well. Other reports of a similar kind are to be found in recent literature. If the effect of the X-ray is the same upon the glandular elements of the thyroid as it is upon the lymphatics, then the results are evidently brought about by diminishing glandular activity and this is most likely the case.

The results of X-ray treatment of leukemia have been disappointing because of the local effects of the treatment which have necessitated its discontinuance, and a subsequent rapid advance of the disease. Whether the results of the treatment in exophthalmic goitre will be permanent remains yet to be seen.

Bloodgood[50] refers to some cases recently treated by X-ray ex-

posures at the suggestion of Dr. Halstead, but says they are of too recent date to draw any deductions. He quotes from a letter written to him by Dr. Chas. H. Mayo, as follows: "I have had much benefit from the X-ray in the treatment of exophthalmic goitre mainly in the preparation for the surgical procedure at a later period, employed in the bad cases; where some patients improved so much that they would not have the operation after the use of the X-ray, they have later relapsed and come back to have the operation upon the gland."

This is an exceedingly interesting observation as showing that the effect of the X-ray is to cause a degeneration of the epithelioid cells of the thyroid which are later regenerated and relapse occurs. The seat of the disease does not seem to be reached by the X-ray in this disease any more than it does in leukemia.

It remains only to state that many able clinicians are still inclined to rely wholly, or almost wholly, upon symptomatic and hygienic methods of treatment; rest, both mental and physical, fresh air, massage, tonics such as iron, quinine and strychnine, and especially arsenic; belladonna, bromides, digitalis, strophanthus, ergot; avoidance of tea, coffee, alcohol and tobacco, and a diet both simple and nutritious. Electricity also has its advocates.[42]

In estimating the value of any line of treatment the spontaneous fluctuations of the disease should be kept in mind, and in reaching a prognosis in a given case it must be recalled that patients have recovered who presented every evidence of impending death, where even dropsy, albuminuria, pneumonia and erysipelas have appeared.

From the foregoing considerations it seems to me that certain conclusions may be deduced as to the present status of the question.

1. The clinical features of exophthalmic goitre are not due to the same anatomic lesions in all cases, and in some no lesions other than hypertrophy of the thyroid can be found, and this hypertrophy of the thyroid is to be regarded as a consequence of the disease rather than the disease itself.
2. We have no present means of determining in a given case what, if any, anatomic lesions exist.
3. From these facts, it follows that treatment in each case must be tentative.
4. Many cases will recover permanently, and these are most likely of toxemic origin.
5. Treatment in such cases is most likely to be of benefit.
6. Where sympathetic nerve, or parathyroid lesions exist, surgery doubtless holds out the only hope of relief.

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THE SURGICAL TREATMENT OF GOITRE.*

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The disease known as goitre is so universal, the deformity it produces so evident, and the number of persons it incapacitates so great, that for over a century it has been the subject of scientific research. The first noteworthy series of observations were published in 1789 by Malcarne, followed in 1825 by those of Caleb Parry. Since that time the literature on the subject has increased to such an extent that at present it would not be difficult to find thousands of references to articles on the thyroid gland and its diseases. Nevertheless the etiology, pathology, and treatment of goitre is far from being a settled question. When we consider the number and importance of the structures in the neighborhood of the thyroid gland and the part these structures play not only in producing symptoms, but especially in all operative procedures, we can readily see that in dealing with all thyroid lesions perfect familiarity with the anatomy of the area is essential.

The thyroid gland, a ductless and very vascular structure, normally weighing about one ounce, is composed of two lateral lobes joined together by an isthmus. This isthmus, which varies greatly in position and size and is sometimes absent, as a rule crosses in front of the second and third rings of the trachea. The two lobes together with the isthmus partially surround the trachea and the esophagus with their nerves and vessels. The two lateral lobes lie between the trachea and the sheath of the common carotid artery in contact with the prevertebral fascia. In about 20 per cent. of the cases there is present an extra lobe which takes the form of a pyramidal process extending from the isthmus upwards towards the hyoid bone. This process, the so-called pyramid, is usually present on the left side only, and since it approaches the middle line it is often spoken of as a middle lobe. There may be several of these pyramidal lobes. Each lateral lobe is enclosed in a capsule of connective tissue which in front and on the sides is very thin and delicate, but posteriorly and towards the middle line it divides into two layers which blend with the layers of the cervical fascia surrounding the trachea and esophagus. The anterior layer blends with the layer of cervical fascia in front of the

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trachea, being continuous with the fascia enveloping the isthmus. The posterior layer joins with the posterior layer of the cervical fascia forming the so-called suspensory ligament.

The blood supply of the gland, which is very free, is furnished by the superior and inferior thyroid arteries with an occasional accessory artery from the arch of the aorta, innominate, or one of the carotids. The thyroid arteries approach the gland at the upper and lower angles, each artery being accompanied by a vein. The superior artery usually reaches the gland as a single trunk and ramifies chiefly upon the anterior aspect of the gland, while the inferior artery usually divides before reaching the gland and ramifies upon its under and inner surface. The thyroid usually has three veins besides those accompanying the arteries, one leaving the gland above, another below, and both of these running directly outward to open into the internal jugular, or they may join and empty as a single vein. The third vein usually runs from the inferior border of the isthmus and empties into the innominate or one of the subclavian veins, behind the sternum. The radicals of all these veins form a net work on the surface of the gland immediately beneath the capsule. Their walls are exceedingly delicate and owing to the pressure of blood in the gland they bleed very freely when wounded. The relations of the blood vessels are very constant and their changed position in enlargement of the gland can usually be foretold by studying the alteration in shape and the method of growth.

The relations of the recurrent laryngeal nerves to the gland constitute one of the greatest dangers in operations on the thyroid. The nerves lie in the groove between the trachea and the esophagus and in close relation to the inferior thyroid artery as it approaches the gland. The two nerves vary in their relations. The right one, owing to the fact that it passes behind the subclavian artery, is farther from the middle line and usually passes in front of the inferior thyroid artery and its branches, while the left one, passing around the arch of the aorta, is considerably nearer the middle line and generally passes behind the artery and so is much less liable to injury in dealing with the artery. Both nerves at a higher level lie close to the trachea and immediately behind the layer of fascia called the suspensory ligament which blends with or is part of the posterior capsule of the gland.

Lesions of the thyroid may be divided into the hypertrophies and tumors. The term goitre should be applied to the hypertrophies only and should be divided into the simple and the exophthalmic goitres. The distinguishing characteristic of both these forms of goitre is that

the enlargement is symmetrical. The simple goitre is further characterized by the fact that its symptoms are only those produced locally by pressure, while the exophthalmic goitre has a definite symptom-complex which is fairly constant. Under the classification of tumors we have the adenomata, cysts, carcinomata, sarcomata, and mixed tumors. These new growths of the thyroid differ from the hypertrophies in that the enlargement is asymmetrical. They resemble the simple goitre in that their symptoms for the most part are those produced locally by pressure. While it ls undoubtedly of value to be able to distinguish the hypertrophies or goitre from tumors of the thyroid, yet as far as the surgical treatment is concerned the procedure is the same in both cases, and surgically both the hypertrophies and tumors may be classified as goitre.

Many surgical procedures have been advocated for the relief of goitre, but it is now conceded that the operation which has furnished the best results is thyroidectomy, although in the the case of exophthalmic goitre good results have been reported after the removal of the cervical sympathetic nerves and their ganglia. The operation of thyroidectomy should be done cautiously, step by step, and with great delicacy. Many forms of skin incisions have been advocated for exposing the tumor, but the one that best meets all indications and leaves the least scar is a transverse incision low down in the neck, with the outer ends turned up and extending in the line of the fibres of the sterno-cleido-mastoid muscle to the distance necessary to give a good exposure. If care is taken to make this incision in one of the folds of the skin and to divide the skin at right angles—not shelving—the remaining scar will be very slight. This flap is turned up and the platysma muscle is divided transversely a little above the skin incision. The anterior and external jugular veins should be caught and divided. Next the sterno-hyoid and sterno-thyroid muscles are cut through, care being taken to divide them with a sharp knife at right angles to their fibers and in an even straight line across the neck so that they may be brought into exact apposition and sutured at the end of the operation. These muscles are often very thin, forming only a delicate layer not thicker than the layer of cervical fascia which forms their posterior sheath and lies next to the gland. The recognition of this line of cleavage between the capsule of the gland and the layer of cervical fascia which forms the posterior sheath of these muscles is of the greatest importance, as it is in this line that the tumor can best be separated. The capsule, which can be recognized by the net work of veins which ramify beneath it and give it its bluish color, is

now exposed. These veins are often very large and their walls so delicate that they must be handled with the greatest care, because if injured the bleeding is very difficult to control—their walls being so thin and the blood under such pressure that they tear from the weight of an ordinary artery forceps, and a ligature is difficult to apply. When the blood supply of the gland is cut off the danger from the wounding of these veins is at an end. When the capsule is exposed the exposure should be sufficiently free to give ample room. The upper pole is isolated and the superior thyroid vessels clamped and divided. The tumor can then usually be turned towards the middle line sufficiently to expose the inferior thyroid artery and vein; these are tied either as a single trunk before the artery divides, or as several branches close to the capsule of the gland. This disposes of nearly the entire blood supply, the veins collapse and the remainder of the dissection can be done with comparative ease.

The isthmus may be clamped and then divided, but I believe that it is better to cut directly through the isthmus without clamping and deal with any bleeding points. Occasionally it is found easier to divide the isthmus before tying the vessels at the lower pole. This is often the case in very large tumors when the lower end is so depressed beneath the sternum as to make the approach of the inferior vessels very difficult. When the isthmus is cut the tumor can be pulled out of its bed and so bring the vessels into easy access. If the isthmus is divided before the inferior thyroid is ligated care must be taken in tying or clamping the cut surface of the gland as it will necessarily bleed very freely. In growths extending beneath the sternum the veins should not be divided in the depth of the wound lest they retract beneath the sternum and so be difficult to deal with.

In working on the inner and lower poles care must be taken to avoid the recurrent laryngeal nerve which on the right side generally passes in front of the inferior thyroid artery and some little distance from the middle line, while on the left side it as a rule passes behind the artery and close to the middle line in the groove between the esophagus and trachea. The gland having been removed all bleeding must be completely arrested and all blood clots removed. No irrigation of the wound should be used. The cut ends of the infra-hyoid muscles are accurately united by fine cat-gut sutures. The cut edges of the platysma are also united. The skin wound should be carefully approximated.

In our opinion drainage is seldom needed, for if the necessary care is taken and delicacy used in handling the tissues the wound will

be dry at the end of the operation and drainage would simply add an unnecessary danger. If the tissues have been lacerated by much handling or crushed by the use of heavy forceps leaving large areas of blood-stained tissue it may be best to drain. It does not seem to us that there is any evidence to support the contention sometimes made that if the wound is well drained the condition known as thyroidism will not occur.

In thyroidectomy the administration of an anesthetic is an important question and one which often presents the greatest danger. In certain cases a general anesthesia is prohibited, but as far as our experience goes we have never seen a case which demanded a local ansthesia and in which a general anesthesia was contra-indicated. It is our custom to give 1-6 gr. of morphin sulphate and 1-100 gr. of scopolamin hydrochlorate one hour before the operation, and, except where severe dyspnea was present before the operation, we have had no more difficulty than in anesthesia for any other operation. In cases of exophthalmic goitre it is our custom to keep the patient in bed a few days before the operation and give liberal doses of atropin sulphate. After observing a number of operations under cocaine we are not impressed with its advantages, but still believe that ether properly administered is just as safe and has many advantages.

Among the complications following thyroidectomy the condition known as thyroidism is perhaps the most common and the most serious. This condition is peculiar in that there are no signs either before or during the operation which might warn us of this danger, nor is there any precaution known which will prevent it. The condition is characterized by a sudden rise of temperature a few hours after the operation. The temperature may go up to 107° within five hours. The pulse become very rapid, running up to 150 to 200 per minute. The breathing is hurried and shallow. The face becomes flushed. The patient is very restless and talkative. As a rule the expression is anxious. Death is usually sudden but may be gradual. In the milder cases the temperature and pulse show a remarkable curve. The temperature sometimes rises and falls three or four degrees in as many hours and this variation may occur several times in twenty-four hours. Many theories have been advanced to account for this peculiar condition but none are satisfactory. It is more frequent in the exophthalmic form of goitre. Some observers have reported that about one-half of their exophthalmic cases suffered from this condition in a more or less severe form. It is not a septic process as the wounds of those that recover heal as kindly and as rapidly as any

other wound of the neck. It occurs as often after cases that are drained as after those that are not. It follows operations under cocaine as well as where a general anesthetic is used. In patients with exophthalmic goitre thyroidism may follow any operation whether it concerns the thyroid gland or any other part of the body. A number of fatal cases have been reported after section of the cervical sympathetic nerves. In the severer forms of thyroidism death almost always results. In the milder forms recovery is the rule. As far as treatment goes, morphine to quiet the restlessness, a cold pack, and an ice bag over the heart region, are the best. There is no drug known which will control the heart.

The treatment of thyroid lesions is rather an indefinite question. We have mentioned the operative treatment only, but there is also the non-operative or medicinal form of treatment. Of the medicinal measures Osler says that they are all "notoriously uncertain." But many cases of goitre yield to medicinal and hygienic treatment, others are resistant from the first, and in others the indications for surgical treatment are absolute. The great difficulty is that the indications for the discontinuance of medicinal treatment and the substitution of surgical treatment are not well enough understood. It is our opinion that good results from medicinal treatment can be expected in the hypertrophies only, and we believe that in every case of exophthalmic or simple goitre medicinal treatment should precede operative treatment, and where there is no improvement in a reasonable length of time and unless operation is especially contra-indicated, surgical treatment should be resorted to.

We believe that every asymmetrical goitre, which is nothing more than a new growth of the thyroid, should receive the same consideration as to treatment as a new growth in any other organ of the body. As a rule all new growths of the thyroid are asymmetrical, and it is impossible to clinically differentiate the malignant from the benign until infiltration of the capsule has taken place and the mediastinal lymph glands are involved, and then it is entirely beyond surgical relief. For this reason all asymmetrical enlargements of the thyroid in persons over thirty years of age should be subjected to the earliest possible removal. When we consider how frequently a benign growth undergoes secondary changes in later life, we are led to believe that all new growths of the thyroid should be removed if for no other reason than as a prophylaxis against later imperative and too often useless operative procedure. It seems to us that in all thyroid enlargements surgical treatment is too often tried as a last resort. The

danger from operation seems to be in proportion to the duration of the condition, and so the earlier the operation the easier its performance, the less dangerous and difficult the after-treatment, and the lower the mortality.

A review of the literature seems to show that in all thyroid enlargements the trend is towards early operative treatment. Statistical computation shows that the procedure which furnishes the best results is thyroidectomy, and as the technic of this operation is developed, the larger will be the number of cases treated successfully.

PSORIASIS.*

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In selecting my subject I have chosen a disorder of the skin; partly because the matter of skin diseases is, perhaps, not given the amount of study and attention to which it is entitled by the general practician, and especially because the subject of psoriasis has been and is of especial interest to me.

Psoriasis is a chronic, occasionally acute, inflammatory disease, characterized by reddish brown flat papules or sharply circumscribed areas of varying size, covered with silvery white imbricated scales. The disease is common, comprising nearly four per cent. of all cutaneous affections reported in America. The percentage is probably even higher, as many who are affected never consult a physician.

The causes of the disease are not known. Sex, social condition, and occupation play little or no part in the etiology. The disorder occurs most frequently between the ages of 10 and 30 years, but no age is exempt. Rille reported a case in an infant six days old. The first attack seldom appears before the age of forty-five. Heredity is seemingly a factor in some cases, but perhaps only in so far as a predisposition or susceptibility is concerned. Greenough considers heredity an important factor in at least one-third of the cases; but direct transmission by inheritance has not been demonstrated. It appears in individuals apparently in perfect health as well as in those ill of other disorders. Plethoric and overfed individuals, those with arthritic disorders, gout or rheumatism,—in fact, defective assimilation and

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elimination—exercise an unfavorable influence on psoriasis. In this type of individuals the disorder is usually indolent but very persistent in character. In the poorly nourished and neurotic, psoriasis usually presents more acute symptoms. Hardaway affirms that he has known the inordinate eating of oatmeal to cause the disease. Polotebnoff, in an elaborate thesis, endeavors to show that it is a vasomotor neurosis, stating there will usually be found a more or less severe nervous trouble either in the patient or his family.

Repeated attempts to transmit the disease by direct inoculation have failed. Campana, Tommasoli and other Italian investigators think that psoriasis is produced by a parasite as yet not recognized. Other theories are advanced, none of which have been substantiated.

SYMPTOMS:—The lesions of psoriasis are always sharply defined from the surrounding skin, somewhat elevated and infiltrated, and covered more or less with silvery white or mother-of-pearl colored, imbricated mica-like scales. On removal of scales of recent lesions a bright red surface is found beneath; in older cases the color is of a duller hue. If the deepest layer of scales is removed, which is usually closely adherent, minute bleeding points are observed, which correspond with the apices of the papillæ beneath.

In uncomplicated cases psoriasis is always distinctly a dry disease. The primary lesion is a pin-point or pin-head-sized, sharply defined, slightly elevated red papule, which at the very beginning is covered with the characteristic silvery scale, except at the very border, where an area of red may be observed which is not covered with scales. Lesions grow peripherally; they may become more infiltrated, a little more elevated, and covered with more abundant imbricated scales. Larger areas are formed either by a gradual increase in size of the original lesions or by the coalescence of a number of smaller plaques. In areas of long persistence in which the disease has been neglected, the skin is infiltrated deeply, occasionally fissured, and covered by heavy scales. After being once developed, lesions may continue unchanged for months or years, or there may be a rapid spreading of the trouble, and cases have been reported in which the entire surface of the body is covered, but it is rare that areas of normal skin can not be detected. With many patients the psoriatic areas entirely or partly disappear in summer only to return at the onset of cold weather, and frequently in the exact location of the previous lesion.

Improvement of an area of psoriasis begins in the centre, when there is a diminution of the hyperemia and of the scaling. Pigmentation or staining of the skin may continue for weeks or months.

In distribution psoriasis is, as a rule, symmetrical, but many exceptions to the rule occur. It is generally maintained that the disease is found most frequently on the extensor surfaces of the extremities, being most common about the elbows and knees; my observations would lead me to believe there are many exceptions to this rule. In their order the locations most frequently involved, as given by most dermatologists, are the scalp, sacrum, chest, face, abdomen, genitals, and more rarely the hands and feet. Alopecia rarely results from areas in the hair, which, however, may be considerably matted with scales.

The nails may be attacked, being thickened, becoming brittle and of a yellowish-white, or dirty white color. The disease usually begins at the edge of the nail, but may appear first in the centre as a small white spot, which grows until it reaches the edge of the nail. The scales raise the nail and occasionally almost separate it from the matrix.

The one exception to its being a dry disease may infrequently be observed when the head or scrotum is involved, in which location there may be moisture; and especially on the scrotum, where there may be fissures and other evidence of acute inflammation.

No well authenticated cases have ever been demonstrated of the mucous surfaces.

In patients subject to psoriasis, slight abrasions of the skin, or local irritations of the skin such as with a mustard plaster, may cause lesions to occur. The amount of scaling varies greatly in different patients, and also varies with the thickness of the skin,—where the skin is thin the scaling is thin; where the skin is thick or over extensor surfaces, the scales are more abundant. As an exception to the rule, the scales may display a deep yellowish shade; and instead of being imbricated, may form a thin continuous sheet of exfoliated epidermis.

Even when psoriatic areas are extensive subjective symptoms may be absent; there is, however, frequently slight and infrequently severe itching; and occasionally in severe cases in the acute stage, burning and smarting are present.

Transitory pigmentation of the skin is the ordinary sequel; but involution is occasionally followed by scars and deep persistent pigmentation, which is probably due to the previous long continued use of arsenic.

PATHOLOGY:—The pathogenesis and the histopathological changes in psoriasis are unsettled problems. The present most plausible theory is that the disease is due to some as yet undiscovered para-

site implanted on susceptible soil. Some observers have advanced the idea that it is perhaps due to a fungus. Weyl believes psoriasis is due to an inherited weakness of the nerve centres. Others suggest that the process begins with a hyperplasia of the rete, followed by inflammatory changes in the corium. Other investigators, among them Crocker and Verrotti, maintain the pathological process begins as a circulatory disturbance of the corium. The corium shows evidence of subacute or chronic inflammation. There are vascular dilatation, moderate edema and infiltration, with an accumulation of leucocytes between the lamellæ. The presence of air between the cells forming the scales gives the latter their peculiar silvery-white appearance.

TREATMENT:—The successful treatment of psoriasis comprehends the necessity of a general knowledge of the practice of medicine. Most psoriatic lesions can be removed temporarily; however, the disease usually returns and is most resistant to treatment. Treatment which gives prompt results in one case may utterly fail in the next,—a method which gives prompt relief at one time may fail in a subsequent attack of apparently the same nature. But a method once adopted should not be abandoned until given a thorough trial. In arriving at conclusions as to the method to use, the general condition of the patient must receive due consideration. When such disorders as gout, rheumatism, anemia, general debility, or some neurosis, are demonstrated, these systemic conditions must receive careful attention. The doubtful cases are those in which no systemic disturbance is discoverable. In cases that are plethoric, fleshy, or overfed, without other appreciable evidence of ill-health, a restricted diet should be advised, with increased elimination and the administration of an alkali. The diet is a difficult part of the treatment, especially in those cases that are otherwise apparently well. Such patients are unwilling to confine themselves to a strict diet for months. The diet should be simple and nutritious. In a majority of cases, hot bread and hot cakes, sweets, pastry, and highly seasoned foods, should be interdicted. Tea, coffee and alcohol should be avoided or used very moderately.

Among the medicines supposed to have a specific action upon psoriasis, arsenic occupies the first place from the standpoint of internal treatment. In a rather small percentage of cases a prolonged administration of arsenic gives permanent relief—in other cases only temporary relief. It is preferable, however, to first give local and dietary treatment a thorough trial. Arsenic should never be given during the acute stage, not until the lesions have ceased to actively

enlarge. When given it should be administered immediately after taking food, beginning with from one to three minims, and in no case increasing the dose to more than ten minims three times a day. The dose should, of course, be reduced or discontinued on the appearance of toxic effects. Some patients possess a decided idiosyncrasy for this drug. It is also well to watch closely all patients for whom we have prescribed arsenic, as there are a few cases in which an acute exacerbation of the subjective symptoms may be caused.

Fowler's solution is the preparation usually employed. The dose may be given in a few ounces of water, or in a teaspoonful of infusion of peppermint, the compound tincture of gentian, or one of numerous other vehicles may be employed. If after long and persistent use, relief is afforded, the administration should be continued for some time after the disease has disappeared entirely.

Instead of arsenic, arsenious acid may be given in doses varying from one-twentieth to one-fortieth grain in pill or tablet, or in the form of the Asiatic pill. Sodium cacodylate, one-half to three grains three times a day, has been used largely by French dermatologists; this is an organic compound of arsenic containing 55 per cent. of arsenious acid.

For some reason, as yet unknown, one form of arsenic may be efficient where another form has failed, but Fowler's solution is the preparation usually employed.

As before stated, many cases improve or entirely recover during the summer, a very few cases undergo involution during the winter. Climatic change is therefore sometimes effectual in permanently curing the eruption. But in a disease in which the results at worst are an annoyance, patients are usually unwilling to change their place of residence.

In individuals where itching is a factor, a change of clothing to meet the exigencies of the changes in temperature may give the patient comfort. A sunbath several times per week is also advised.

Radiotherapy has been reported by some observers as being quite effective in removing psoriatic lesions. The earlier reports, however, were more enthusiastic as to the efficiency of this treatment than those of a later date.

The first indication to be met on beginning local treatment is a complete removal of the scales from the patches. Thorough bathing in water will be sufficient in most cases. But to accomplish the removal of the scales in a more difficult case there is perhaps no better way than to first secure their maceration in some fatty substance, such

as oils, vaselin or glycerin. A dermal curette may occasionally be very carefully used. Frequent bathing all the way through the treatment, and afterwards, is a necessity.

As a treatment, Hebra advises the patient to remain in water from 4 to 8 hours per day. Baths medicated by the addition of sulphur or tar are also advised. An acquaintance with a variety of treatments is desirable to meet the different conditions of cases and parts to be treated.

For the scalp and other hairy parts, vaselin, or equal parts of vaselin, lanolin and olive oil, are convenient ointment bases. Where the occupation of the patient will not permit the use of ointments during the day the patches may be protected with a tragacanth varnish, as follows: Tragacanth, 5 parts; glycerin, 2 parts; distilled water, 93 parts. This should be removed at night and the ointment applied. Medicated flexible collodion is a cleanly, dry application. Medicated plasters are sometimes advisable. For the face, scalp and hands ammoniated mercury in 3 to 15 per cent ointment is a remedy. Salicylic acid in the same strength is also used.

I think it is safe to assert that the most effectual drug in the local treatment of psoriasis is chrysarobin, (or chrysophanic acid). It is not a specific, but its application with caution and skill will usually produce an involution of the lesions. The drug may be applied in strength varying from 2 to 40 grains to the ounce of ointment, collodion, plaster, paste or liquid gutta-percha. It may produce disagreeable effects, such as irritable, erythematous or darkly stained skin, or a sensation of burning or itching after a few daily applications. These unpleasant effects may be considerably lessened by applying lightly, being very careful not to permit the application to extend beyond the border of the lesions; or, perhaps better, by not applying quite to the edge of the lesions; and by changing the underclothing every second or third day. It is well to remember and to advise the patient that the clothing coming in contact with this drug in the form of an ointment or any moist application, will be deeply and permanently stained. The reason why the underclothing should be changed frequently during treatment is that the clothing becomes smeared with the medicine, and with the movements of the body the application will come in contact with parts of the individual not affected by the disease. If there are very large areas of psoriasis a weak ointment should be used. The lesions themselves have a special toleration for the drug—the dermatitis occurs in areas surrounding the diseased tissue. There is perhaps no way of knowing just when

the application of chrysarobin should be discontinued; but if the dermatitis does not become too severe surrounding the lesions, it is well to continue the use of the drug until the original psoriatic area also takes on a red appearance.. Chrysarobin has been given internally in about one-sixth grain doses.

Tar is sometimes a valuable remedy in the local treatment of psoriasis. Pix liquida, oil of cade, or oleum rusci may be applied in the form of a salve, one drachm to the ounce.

Pyrogallol has been suggested, but it is far inferior to chrysarobin.

Many other drugs are used—none of which equal in effectiveness the ones mentioned.

As to the prognosis,—many patients are permantly cured by even the simplest treatment. But the permanent relief of psoriasis is not insured by any treatment now known; and especially of a grave case. The disease may recur repeatedly for the greater part of a lifetime. The prognosis is considerably improved by a removal to a climate suitable for a psoriatic patient.

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EDITORIAL COMMENT.

MEDICAL BILLS BEFORE THE LEGISLATURE.

We print below three bills introduced into the present legislature at the instance and with the endorsement of the legislative committee of the Wisconsin Board of Medical Examiners, the State Medical Society, and the Medical Society of Milwaukee County. One bill defines what shall constitute the practice of medicine in this State; the second defines what is meant by immoral, dishonorable and unprofessional conduct on the part of physicians; the third defines the class of advertisements that shall not be published in our newspapers.

The first two are amended bills, introduced with the intention of making stronger, more concise and more readily interpreted, the statutes already existing. A better plan than a legislative enactment defining unprofessional conduct is probably that existing in Minnesota where such definition is entirely in the hands of the State Board of

Medical Examiners. This Board exercises the same power that in Wisconsin is vested in the State Board of Dental Examiners, namely, to revoke a license for what it deems sufficient cause.

The present bill defining the practice of medicine will undoubtedly meet with a tremendous opposition. In framing a bill that is meant to cope with an existing laxity of definition it is absolutely essential that, in the desire to do justice to all, no hardship or injustice shall be imposed on any one. The safest way in which to nullify a bill that is bad by reason of unjust provisions, is to enact and enforce it. Its repeal is a certainty. It is far better to introduce a bill which is absolutely unassailable by virtue of its equitableness, than one whose provisions can at any time be considered to work an injustice upon any one.

This bill, as introduced in its amended form, does not interfere with the Christian Scientists, nor with those who practice massage or physical culture. It is the duty of the court to enforce laws, not to make them, nor is it a discretionary tribunal in a case covered by a well defined statute. If we strive to make the term "legality" synonymous with "justice," then our proposed laws must where possible be so specific as to allow of no latitude in their interpretation. Therefore it has been the effort of the framers of the bill to make it so specific in its provisions and restrictions that the courts may have no difficulty in placing the proper construction upon its intent in any given case.

The third bill, that prohibiting, under penalty to the advertiser and publisher, the printing of advertisements relating to sexual and venereal diseases, and of abortifacient remedies, has our unqualified support.

The opposition to these bills emanates from the newspaper fraternity, who see a source of revenue cut off if these bills become laws. Their representatives have appeared at the Committee hearings, and opposed the measures for obvious reasons. Now is the time for the medical profession of the State to unite in order to secure this legislation.

Write to your representatives in Senate and Assembly, and enlist their support of these measures.

DO IT NOW!

A BILL—314S.

Introduced by Senator Brazeau.

To amend section 6, chapter 426, laws of 1903, making the same section 1435 of the statutes of 1898, defining what shall constitute practicing medicine.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. Section 6 of chapter 426, of the laws of 1903, is amended to read: Section 6. 1. Every person shall be regarded as practicing medicine, surgery or osteopathy within the meaning of this act, who shall append to his or her name the words or letters "Doctor," "Dr.," "Professor," "Prof.," "M. D.," "M. B.," or "D. O.," or any other title, letters, combination of letters or designation which in any way represents him or her, or may tend to represent him or her, as engaged in the practice of medicine, surgery, osteopathy, in any of its branches, or who shall for a fee prescribe or recommend or for any compensation of any kind or nature whatsoever for like use any drugs or other medical or surgical treatment, or osteopathic manipulation, for the cure or relief of any wound, fracture, bodily injury, infirmity or disease, provided, however, that nothing in this act contained shall be construed as applying to any dentist or resident refracting optician engaged in the practice of his or her profession.

2. The use of any of the above mentioned words or letters or titles, in such connection, and under such circumstances as to induce the belief, or tending to induce the belief, that the person who uses them is engaged in the practice of medicine, or surgery or osteopathy in any of its branches, shall be deemed and accepted as prima facie proof of an intent on the part of such person to represent himself or herself as engaged in the practice of medicine, or surgery or osteopathy.

Section 2. This act shall take effect and be in force from and after its passage and publication.

A BILL—315S.

Introduced by Senator Brazeau.

To amend section 2, chapter 422, laws of 1905, and making the same section 1436f of the statutes of 1898, relating to immoral, dishonorable or unprofessional conduct on the part of physicians.

The people of the State of Wisconsin, represented in senate and assembly, do enact as follows:

Section 1. Section 2 of chapter 422, laws of 1905, is amended and made a section of the statutes of 1898 to read: Section 1436f. The words "immoral, dishonorable or unprofessional conduct" as used in section 1 of this act are hereby declared to mean: First, producing, aiding or abetting a criminal abortion. Second, advertising in any manner either in his own name or under the name of another person, firm or pretended firm, corporation or pretended corporation, in any newspaper, pamphlet, circular, or other written or printed paper or document the curing of venereal diseases, the restoration of "lost manhood," the treatment and curing of private diseases peculiar to men or women, or the advertising himself to the public in any manner as a specialist in diseases of the sexual organs, or diseases caused by sexual weakness, self-abuse or excessive indulgences, or in any diseases of a like nature or produced by a like cause, or the advertising of any medicine or any means whatever whereby the monthly periods of women can be regulated or the menses re-established, if suppressed, or being employed by or in the service of any person, firm or pretended firm, association, corporation, or pretended corporation, so advertising. Third, the obtaining of any fee, or offering to accept a fee on the assurance or promise that a manifestly incurable disease

can be or will be permanently cured. Fourth, wilfully betraying a professional secret. Fifth, indulging in the drug habit. Sixth, conviction of any offense involving moral turpitude.

Section 2. This act shall take effect and be in force from and after its passage and publication.

A BILL—449S.

Introduced by Senator Lockney.

To create section 4590n statutes of 1898, prohibiting advertising the treatment of venereal and sexual diseases.

Section 1. There is added to the statutes of 1898, a new section to read: Section 4590n.

Section 1. Any person who shall advertise in any manner, either in his own name or under the name of another person, firm or pretended firm, association, corporation or pretended corporation, in any newspaper, pamphlet, circular or other written or printed paper, the treatment and curing of venereal diseases, or the restoration of "lost manhood," or who shall advertise in any manner that he is a specialist in diseases of the sexual organs or diseases caused by sexual weakness, self-abuse or excessive sexual indulgences or in any diseases of a like nature or produced by like causes, or who shall advertise in any manner any medicine, drug, compound or any means whatever whereby sexual and venereal diseases of men and women may be cured or relieved or abortion or miscarriage produced, and the owner, publisher, or manager of any newspaper who shall publish any such advertisement or permit or allow any such advertisements to be inserted and published in any newspaper owned or controlled by him or in which he has an interest, shall be guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than fifty nor more than five hundred dollars, or by imprisonment in the county jail not more than six months, or by both such fine and imprisonment; provided that nothing in this act contained shall be construed as prohibiting and punishing the printing, publication and distribution of medical journals, papers, pamphlets and circulars intended for scientific and professional information.

Section 2. This act shall take effect and be in force from and after its passage and publication.

APPROVAL OF THE PLAN PROPOSED FOR THE ESTABLISHMENT OF A MEDICAL COLLEGE AT THE STATE UNIVERSITY.

There seems to be an almost unanimous consensus of opinion among Wisconsin medical men that the State should do something for medical education. The immense strides that have been recently made in the medical sciences make large private endowment or state aid an absolute essential for the best kind of medical instruction. Every important state university except that of Wisconsin has a medical department. There is no doubt but that there should also be a medical department in connection with the State University, if medicine in Wisconsin is to be kept on a par with that in neighboring states.

The question, it seems to us, is not as to whether the State should support a medical college, but rather how it may proceed to establish one. The plan proposed by the State University and now embodied in the University legislative bill seems the simplest and most practical.

Briefly summed up, it is as follows:

1. To incorporate a medical college;

2. To add to departments already established in connection with the pre-medical course those departments necessary for the completion of the first two years of the medical curriculum;

3. To enter into affiliations with medical schools of university grade situated in large clinical centers so that the Wisconsin students can go to these schools for the completion of their medical course.

In order to obtain additional light upon some of the questions at issue, and especially to ascertain the University's attitude towards existing Wisconsin medical schools, we directed an inquiry to Prof. C. R. Bardeen, head of the Department of Anatomy, and received the following reply:

Madison, Mar. 15, 1907.

DR. A. J. PATEK, Editor WISCONSIN MEDICAL JOURNAL,

Dear Sir:—The primary object of the University in asking support for the establishment of a medical college at Madison is the development of the basal sciences and the training of students in these sciences. The establishment, of the new department proposed will enable the University to develop the sciences of pharmacology, pathology, hygiene and preventive medicine in a broad and liberal way. The new departments proposed include those of plant and animal pathology which would be developed chiefly for the sake of their economic value to the State, but would be of value also to preventive medicine. The primary object of the Milwaukee schools is, I believe, the development of the clinical branches of medicine. A cordial co-operation between the University and these schools would be to the advantage of all concerned. It is generally conceded that a thorough training in the basal sciences of medicine is necessary for a proper appreciation of the clinical branches. The University offers unusual facilities for a training in these sciences. On the other hand there are not clinical facilities at Madison for the establishment of clinical courses, nor should the University enter into the expensive experiment of trying to establish them there or in competition with the Milwaukee schools in Milwaukee. By relieving the Milwaukee schools to a certain extent of the burden of conducting expensive departments in the basal sciences, the University would indirectly enable them to build up the clinical side of the work more and more and this in turn would attract more and more students from the University. By the development and concentration of the clinical facilities in Milwaukee it should be possible to offer splendid clinical courses there. I should certainly like to see the progress along this line that is being made in Milwaukee continue and relations of mutual benefit firmly established between the Milwaukee schools and the University at Madison. A plan of final consolidation of all interests into one big medical school, which

is the ideal of not a few in the State, could then be carefully considered and, if possible, matured. A firm structure of noble proportions cannot be built in haste. Yours very truly, CHARLES R. BARDEEN.

We desired to place before our readers a more definite statement of President Van Hise's intentions, and therefore directed a second inquiry to Prof. Bardeen. In reply we received the following:

Madison, Mar. 18, 1907.

DEAR DOCTOR PATEK.

In answer to your further inquiry, I learn from conversation with President Van Hise that he is of the opinion that when the first two years of the medical course are well established the two clinical years might well be added, provided that adequate hospital, dispensary and clinical facilities were assured. This is impractical in Madison. It should be practical in Milwaukee if all the best men interested in the advance of clinical medicine united to make it so. Yours very truly, CHARLES R. BARDEEN.

If at first blush it may have appeared that the claims of Milwaukee's institutions had been ignored, the above letters put a different interpretation upon the matter. Inasmuch as it is now planned to develop in a most thorough fashion only the basal sciences of medicine, it would indeed be premature to make any provision at the present time looking forward to an alliance or affiliation with any other school or schools.

The fifty thousand ($50,000) dollar appropriation—all that can be asked of the present legislature—suffices for the establishment of those courses needed for the completion of full two years of medical study. As this scientific work is by far the most costly part of medical instruction, it would seem that the clinical equipment needed to amplify the very fair hospital facilities already afforded in Milwaukee, is surely capable of realization.

Rather than incurring opposition because it has been determined that a full four years' course is not feasible at the present time, we believe the Madison policy—conservative, safe, farsighted—deserves active and cordial support. The reward of assistance now given will, we firmly believe, soon be felt in the absorption of a clinical school, with the great state behind it.

That benefit would accrue to all parties, there is no doubt. Three full-fledged medical schools are not needed in this state. There is room and need for one large, well endowed, fully equipped institution, and we have faith in the ultimate realization of this outcome.

Some have raised the question as to the recognition of a medical college in which merely the first two years of the course are given. A considerable number of such colleges have already been recognized

by the leading State Boards of Medical Examiners, and assurance has been given that such recognition will be granted the State University. Letters to this effect are printed below.

There are at present departments of anatomy and physiology, physiological chemistry, and bacteriology and hygiene at the State University. The addition of pathology, pharmacology, and one or two more subjects would make it possible to give the complete curriculum of the first two years of medicine as given in most of the better schools. That this portion of the work may be adequately given apart from a large clinical center is the opinion of the leading medical educators of the country, as may be seen in the letters quoted below in answer to questions proposed by Indiana University.

The following letters (abbreviated) to Dr. Bardeen show that the plans of the State University are practical and are heartily approved by the foremost medical educators.

Albany, New York, Feb. 15, 1907.

My Dear Dr. Bardeen:—We have registered certain two-year courses in state universities, e. g., University of North Carolina, where we have been convinced that the first two years of a genuine medical course could be afforded by the institution, thus permitting such students to remain at home till the completion of the second year and then migrate to other institutions where clinical facilities permit the continuance of the full four-year course. I think there is no tendency on the part of state boards of medical examiners to object to having work done in such institutions. Of course the tendency to claim premedical courses in colleges of arts and science has led to careful discrimination between the institutions that can afford the first two years of medical instruction and those that cannot. On the contrary, I am of the opinion that there is a growing tendency to recognize such work in legitimate institutions. We do not see the reasonableness of declining to grant credit for work done in institutions that can without doubt give one or more years of medical instruction. It is on this principle that certain institutions in our registered list fall into lower classes.

(Signed) HOWARD H. ROGERS,
First Assistant Commissioner of Education.

Dear Doctor:—Replying to your favor of Mar. 4th, I wish to say that when you have carried out the plan outlined in your letter, the Minnesota State Board will recognize your first two years' work for its full value. You will then be a medical college giving the first two years of a regular medical course.

W. S. FULLERTON, *Sec'y.*,
Minnesota State Board of Medical Examiners.

Dear Doctor:—I am sure this Association will be glad to enroll the Medical Department of the University of Wisconsin among its membership, and when you are ready for it, I will send you an application blank. Mem-

bership in this Association may be of some service to you, and it certainly will be to us, because we want every good school we can get.

(Signed) FRED C. ZAPPFE, *Sec'y.*,
Assn. of American Medical Colleges.

A list of questions was prepared by Indiana University and sent to representative educators throughout the United States. The following is the list of the questions with the replies received:

QUESTION No. 1. *Do you believe there is time or reason for clinics during the first two years of the modern medical course?* (Yes, or no, with reason.)

"No. Lack of time. Any work on the living human body should be limited to a study of the normal during the first two years."—Dr. Arthur Dean Bevan, Chairman of the Council of Medical Education of the American Medical Association, Chicago.

"I think it is desirable not be begin clinical work until the student has received his instruction in the fundamental subjects. At the University of Pennsylvania the time has been taken up almost entirely with Anatomy, Chemistry, Physiology, Bacteriology, Pathology, Physical Diagnosis, Materia Medica, and Pharmacy."—Charles H. Frazier, Dean, Medical Department of the University of Pennsylvania, Member of the Council of Medical Education of the American Medical Association.

"I am clearly of the opinion that there is no room or reason for clinical instruction in the first two years of the Medical course."—George M. Kober, M. D., Dean of the Georgetown University School of Medicine, Washington, D. C., President of the American Association of Medical Colleges.

"Although we have what we believe to be excellent clinical facilities, we do not schedule any clinical work for the first two years of the medical curriculum. We believe that that time should be spent on foundation work."—Herbert E. Smith, M. D., Dean of Medical Faculty, Yale University.

"In my opinion it is harmful to introduce clinics into the first two years of the regular medical course, unless a college degree or its equivalent, with a large amount of scientific work, be required for admission. If this be not required, these years ought to be restricted solely to the basal medical sciences, and medical practice should be rigidly excluded. In Columbia no clinics are opened to the students of these years, although recitations from text-books are held in medicine, obstetrics, materia medica, and surgery. The advisability of holding these recitations at this time seems to me questionable."—F. S. Lee, Professor of Physiology, Columbia University, College of Medicine.

"Clinics are not necessary or even desirable during the first two years of the medical course. We have found some advantage in giving students toward the end of the second year some practical instruction in what may be called normal physical diagnosis."—Wm. H. Welch, Professor of Pathology, Johns Hopkins University, Baltimore, Md.

The following also answered No:

Dr. W. H. Washburn, Dean, Wis. Coll. Phys. and Surg., Milwaukee.
Dr. Frank Billings, Treasurer American Medical Association.
Dr. George Hoxie, Dean, School of Medicine, Univ. of Kansas.

Henry B. Ward, Dean, College of Medicine, Univ. of Neb.
Simon Gage, Professor of Histology, Cornell Univ. Med. College.
Dr. John Simpson, Dean, Medical Coll. W. Va. Univ.
Dr. Francis Venable, Pres. Med. Dept. University of N. C.
A. A. D'Ancona, Dean, Med. Dept., Univ. of California.
John M. Dodson, Dean, Rush Medical College, Chicago.
Dr. V. Chamberlain, Dean, University of Utah.
Dr. D. S. Fairchild, Des Moines, 3rd V.-P. Am. Med. Assn.
Dr. P. Maxwell Foshay, Chicago, Ill., Chairman of the Judicial Council of the American Medical Association.
Dr. F. K. Cooke, Dean, Wake Forest (N. C.) School of Med.
Dr. J. C. Lange, Dean, W. Pa. Medical College, Pittsburg, Pa.
Dr. G. M. Waters, Dean, Ohio Medical University.
Dr. W. S. Leathers, Dean, Med. Dept., Univ. of Mississippi.
Dr. W. H. Byrd, Dean, Willamette Univ. Med. Dept., Salem, Ore.
Dr. H. A. Royster, Dean, N. C. Univ. Med. Dept., Raleigh, N. C.
Dr. A. W. McAlester, Dean, Mo. Univ. Dept. of Medicine.
Dr. W. A. Brannon, Dean, Univ. of N. D. Med. College.
Dr. R. P. Stoops, Univ. of Okla. School of Medicine.
Dr. J. N. Warren, Pres. Sioux City College of Medicine.
Dr. J. P. Monroe, Pres. N. C. Medical College.
Dr. G. P. Clark, Dean, Syracuse Univ. College of Medicine.
Dr. F. G. Novy, Professor of Bacteriology, Univ. of Mich.
Dr. F. P. Mall, Professor of Anatomy, Johns Hopkins Univ.
Dr. Harold Williams, Dean, Tufts Med. School, Boston, Mass.
Dr. Seneca Egbert, Dean, Medico-Chirurgical College, Phila.
Dr. W. F. Phillips, Dean, Geo. Wash. Univ., Dept. of Medicine.
Dr. R. D. Coale, Dean, Univ. of Maryland Medical Department.
Dr. F. C. Waite, Western Reserve Univ., and V.-P. of Assn. of American Medical Colleges.
Dr. L. F. Barker, Professor of Medicine, Johns Hopkins Univ.

QUESTION NO. 2. *Do you believe the first two years of the medical course may be given effectively at a university located at some distance from the city in which the last two years of the course are given?*

"Yes. Our Ithaca men have taken the best places at hospitals in New York and have proved themselves thoroughly well prepared."—Simon Gage, Professor of Histology, Cornell University.

"Our students who fill these conditions stand better than the students trained in the regular medical schools when competing with them at the College of Physicians and Surgeons of Baltimore."—John M. Simpson, Dean, W. Va. Univ. College of Medicine.

"I think there is no question that this foundation work can be done satisfactorily at a university where no clinical work is taught."—Herbert Smith, Dean, Medical Faculty, Yale University.

"This institution has been giving the first two years at the University apart from the last two years, which are given at Raleigh. These first two years have been given for sixteen years, and I think this was probably the first institution in the country to adopt this plan. We find it eminently

saitsfactory and have been very successful with our men."—Francis P. Venable, President of the University of North Carolina.

"Yes. If, for example, I were sending my son to Cornell where he might take his first two years of the medical work either at Ithaca or in New York City, I should unhesitatingly send him to Ithaca, believing that he would there pursue the study of the fundamental sciences under much better conditions and much more effectively than in New York City."—John M. Dodson, Dean of Rush Medical College, Chicago, Ill.

"I am clearly of the opinion that there is no room or reason for clinical instruction in the first two years of the medical course, and because of this I feel that the first two years may be given thoroughly satisfactorily at some distance from the last two years of the course, no matter how small the population of that educational center may be, so long as provisions for anatomical material are made."—Dr. Geo. Kober, Dean of Georgetown University School of Medicine, Washington, D. C., and President of the Association of American Medical Colleges.

"Yes, decidedly. We have had much experience in this line, particularly in the medical departments of the University of North Carolina, at Chapel Hill, N. C., and of Wake Forest College, at Wake Forest, N. C., in both of which institutions the course of medicine is limited to the first two years, and from which we yearly receive a number of students into our own curriculum. As a rule, we have found these students excellently well prepared in the work of the first two years."—Dr. R. D. Coale, Dean of the Univ. of Maryland School of Medicine.

It seems to me not only possible but in some respects advantageous, to give the student the first two years in medicine satisfactorily at a distance from the last two. With the usual arrangement his proximity to the clinics often proves distracting, and the atmosphere of practical medicine and surgery in which he works often make him impatient of the more purely scientific character of his required studies. I personally am inclined to the opinion that a complete separation, in place, of the first two years and the last two years is the better arrangement."—F. S. Lee, Professor of Physiology, Columbia Univ. Coll. Phys. and Surgeons.

"Doubtless the first two years may be conducted effectively quite apart from the last two, and a good medical school may be organized along the lines indicated in your letter."—Wm. Welch, Professor of Pathology, Johns Hopkins Medical School, Baltimore.

"Of course I do. The place that is the best manned and the best equipped will give the best course, and this is nearly always in the university. Within ten years all good schools will adopt the Michigan plan, that is, the six-year combination course. It seems to me that the medical profession of Indiana should receive the State support you offer with open arms. Only in this way can you hope to raise your standard to the highest. The break between the first two years and the last two years is not serious."—Dr. F. P. Mall, Professor of Anatomy, Johns Hopkins Medical School.

The following also answered Yes:

Dr. W. H. Washburn, Dean, Wisconsin College of Phys. and Surgeons.

Dr. Frank Billings, Treas. American Medical Association.

G. H. Hoxie, Dean University of Kansas School of Medicine.

Henry B. Ward, Dean University of Nebraska Medical Dept. and Member of Judicial Council Assn. Am. Med. Colleges.

Wm. M. Polk, Dean Cornell University Medical School.

H. A. Royster, Dean N. C. University Medical Department.

Dr. J. D. Bryant, New York City, President-elect of the American Medical Association.

Dr. Fairchild, Des Moines, 3rd V.-P. Am. Med. Association.

Dr. G. M. Waters, Dean Ohio Medical University.

Dr. A. D. Bevan, Chicago, Ill., Chairman of the Council of Medical Education of the American Medical Assn.

Dr. P. M. Foshay, Chicago, Ill., Chairman of the Judicial Council of the American Medical Association.

F. K. Cooke, Dean Wake Forest School of Medicine (N. C.)

Dr. J. C. Lange, Dean W. Pa. Medical College, Pittsburg.

Dr. W. S. Leathers, Dean Univ. of Miss. Medical Department.

A. W. McAlester, Dean University Mo. Department of Medicine.

M. A. Brannon, Dean Univ. of N. D. College of Medicine.

R. P. Stoops, Dean of Oklahoma School of Medicine.

Dr. J. N. Warren, Pres. Sioux City College of Medicine.

J. P. Monroe, Pres. N. C. Medical College.

Dr. W. H. Byrd, Dean Willamette Univ. Med. Dept., Salem. Ore.

G. P. Clark, Dean Syracuse University School of Medicine.

Dr. F. G. Novy, Professor of Bacteriology, University of Mich.

Dr. Harold Williams, Dean Tufts College Medical School.

Dr. Seneca Egbert, Dean Medico-Chirurgical College, Phila.

Dr. V. Chamberlain, University of Utah.

Dr. W. F. Phillips, Dean, Geo. Wash. Univ. Dept. of Medicine.

Dr. A. K. West, Dean Epworth Univ. Coll. Med., Oklahoma City.

Dr. Wm. J. Mayo, President of the American Medical Association.

Dr. C .H. Frazier, Dean Univ. of Pa. Dept. of Medicine and Member of Council on Med. Education of Am. Med. Assn.

DENVER BARS THE TUBERCULOUS.

"The city of Denver has ordered that every house tent within the limits of that city shall be at once removed. For many years there have been thousands of these house tents in Denver, a large part of which are occupied by persons afflicted with consumption."—(Milwaukee *Sentinel,* March 14, 1907.)

That this action of the Denver common council will work a serious hardship on a class of people already sufficiently afflicted is not to be denied. As a manifestation of the same phthisiophobia which in California a few years ago sought to exclude these poor sufferers from entering that state, it is to be deplored. It is the same

sentiment which a few months ago so bitterly opposed the erection of the Sanatorium of the Milwaukee Association in a neighboring suburb. Unquestionably the effect of the ubiquitous consumptive upon prospective residents of such a city as Denver, and the consequent retardation in the advance of real estate values, must certainly prevent in some measure the growth of the city. As an offset it may well be claimed that many of the brightest people of Colorado are ex-consumptives and that much of the progress of the state is due to the superiority of intellect of people who, but for failing health, would never have made it their residence.

In the interest of fairness, however, it would seem that instead of making the people of any one region bear the burden of this tuberculous horde, it were preferable that, admitting a certain climate to be the best, the home community or the country as a whole should make the necessary reparation. As the various states are now awakening to their duty in regard to the care of their tuberculous, and have come to realize that change of climate is not essential to recovery, we believe the action of the Denver people, while apparently a most cruel and heartless one, may serve to deter all but those able to seek proper sanatorium treatment from going there, and it will also call attention to the need of each state caring for its own cases within its own borders. The country is fortunately becoming aroused to an appreciation of its duty in this regard, and in our own community we must not be called behind the times. Let our consumptives be instructed not to go away from their home state, and they will then not be subjected to the humiliation conveyed by the action of the Rocky Mountain city.

The accommodations afforded the stranger invalid are necessarily meagre enough, but if these people could be gathered together in a colony with a central control, their cases would progress more favorably and no reasonable objection on the part of the citizens could be made. As stated, however, such forcible colonizing would be scarcely possible to carry out. The people of Colorado cannot be expected to pay the cost of treating the sick of the whole country, but Wisconsin people can be expected to give aid to institutions planned to care for Wisconsin victims of consumption.

MARQUETTE-MILWAUKEE MEDICAL COLLEGE CONSOLIDATION.

A bill has been introduced into the Legislature providing for the acquisition of the Milwaukee Medical College by the Marquette College as the latter's medical department. As it is altogether likely that no one will interpose objections to the plan, the assumption is reason-

ably safe that the amalgamation will take place. We heartily welcome any movement that tends to the advancement of medicine, and believe that in this union that entails the loss of its identity as an independent institution, the Milwaukee Medical College is taking a step that will redound to its profit, and to that of medical teaching in this state.

RAILWAY SANITATION.

The subject of railway sanitation has received considerable attention from medical writers during the last five years, and is beginning to be acted upon by railroad authorities in a practical way. More attention is being given on some roads to doing away with superfluous hangings, the substitution of leather for plush in upholstery, the installation of better ventilation apparatus, etc. In the assumption of control of railroad rates the states and federal government are now asserting the rights of the public from the material side, and that assumption should carry with it the right of instituting uniform regulations in matters pertaining as well to the public health. Dr. H. M. Bracken, of St. Paul,* has written an extremely practical and timely article on this subject. Spitting ordinances and regulations as to the kind and number of spittoons; the cleaning of cars *en route* and at terminal points; the construction and upholstery of cars; regulations as to the care of blankets and bedding occupied by patients afflicted with tubercular and other communicable diseases; regulation of heat and fresh air supply—these and many similar points should soon be made the subject for the enactment of uniform laws. Such improvements as have been made in sleeping cars should be instituted in the day coaches and the smoking cars as well. In the latter, where spitting is common, the seats should be placed, as in the sleeping cars, with a spittoon for each two seats. The cleaning of cars in transit is an important matter, and the modern method of vacuum cleaning would add greatly to the comfort and health of the public on long overland journeys. In toilet rooms at present no provision is made for brushing the teeth except into the wash bowl, and as it is impossible to use running water for washing face and hands this filthy receptacle, this cuspidor, must be used.

The department of railway sanitation might well be given over to the Public Health and Marine Hospital Service, and in the event of the establishment of a national bureau of health this very important matter would undoubtedly be placed in its hands.

*Read at the 3d Annual Meeting of the Rock Island System Surgical Association, St. Joseph, Missouri, December, 1905.

THE OPIUM TRAFFIC IN CHINA.

The Chinese, ingenuous, uncomplaining, until recently accepting the burdens that our Caucasian civilization has forced upon them, have now become aroused to a realization of the manner in which they have been maligned by the entire world.

The world has long ceased to point the finger of scorn at the British for their introduction of the opium traffic into China. When arrayed against the Chinaman because he frequents opium dens and invites others to join in this vice, we forget who it was that taught him the use of the drug, just as we forget, when passing censure upon an Indian who has imbibed too freely and puts aside the ways of peace for the war dance, who it was that taught the Red Man the charms of firewater.

China is about to purge herself of the opium traffic. Unfortunately, such an importance does this traffic assume in her commercial prosperity, that she witnesses with concern the disappearance of revenue from this source. It is reported, however, that by imperial edict the use of opium will be condemned, and that it is hoped to reduce the cultivation of poppy so that it will be extinct in ten years, at the same time restricting its importation from India, extinguishing the trade in the same period of time.

NEWS ITEMS AND PERSONALS.

Dr. Jay B. Brewer, of Jefferson, was married to Miss Cora L. Ludmann of Whitewater.

A fire at the Milwaukee Hospital destroyed the south wing of the fourth story. It will be rebuilt at once.

Dr. W. T. Reinhart of Ashland, was struck in the eye on March 9, by a fragment of a bullet. Sight in the injured eye was destroyed.

Dr. Chester A. Paull, who has been at the head of the Loomis sanitarium in Liberty County, N. Y., has been elected superintendent of the new State Tuberculosis Sanitarium at Wales, Waukesha county.

Dr. Hezekiah D. Fuller, of Berlin, Wis., a graduate in 1873 of the Albany Medical College, was taken with uremic convulsions at his office on March 18, and died in coma on March 20, aged 57. Dr. Fuller was a member of the Green Lake—Waushara County Medical Society and of the Fox River Valley Medical Society, and removed to Berlin from Seymour, Wis., about one year ago.

Dr. A. Z. Howard, for the past seven years in practice at Oshkosh, died on February 24, of diabetes, after an illness of one year. Prior to residing in Oshkosh, he practiced fourteen years at Dartford. Dr. Howard was graduated at Keokuk Medical College in 1879. He was a member of the American Medical Association, State Medical Society, Winnebago County Society, and Oshkosh Medical Club.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior, 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.		FOR FOUR YEARS.	
1st Dist., H. B. Sears,	Beaver Dam	7th Dist., W. T. Sarles,	Sparta
2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
FOR TWO YEARS.		**FOR FIVE YEARS.**	
3rd Dist., F. T. Nye,	Beloit	9th Dist., D. L. Sauerhering,	Wausau
4th Dist., W. Cunningham,	Platteville	10th Dist., E. L. Boothby,	Hammond
FOR THREE YEARS.		**FOR SIX YEARS.**	
5th Dist., J. V. Mears,	Fond du Lac	11th Dist., J. M. Dodd,	Ashland
6th Dist., J. S. Walbridge,	Berlin	12th Dist., A T. Holbrook,	Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

MEETING OF THE COUNCIL.

The Annual Meeting of the Council of the State Medical Society was held in Milwaukee, at the rooms of the Milwaukee Medical Society on the afternoon of January 16th. The meeting was called to order by the chairman, Dr. E. L. Boothby. There were present: Drs. G. Windescheim of the 2nd District, H. V. Mears of the 5th, J. S. Walbridge of the 6th, D. Sauerhering of the 9th, E. L. Boothby of the 10th, J. M. Dodd of the 11th and A. T. Holbrook of the 12th, with President Pelton, Treasurer Hall and Secretary Sheldon.

The resignation of Dr. C. A. Armstrong, Councilor of the 4th District, was read by the secretary. On motion it was accepted and Dr. Wilson Cunningham of Platteville was elected to fill the vacancy. (Dr. Cunningham has since accepted the appointment.) Several communications were read by the secretary, which, after discussion, were referred back to the secretary for final disposal.

Reports were read or given verbally from the following districts: The 2nd, 3rd, 5th, 6th, 9th, 10th, 11th, and 12th. The reports indicated that the organization is gaining in strength and permanence, with more of scientific interest and with meetings better sustained. Waupaca County was changed from the 6th Councilor District to the 9th, and Langlade from the 9th to the 11th. Drs. Hall and Sheldon were re-elected Treasurer and Secretary, respectively, for the new year.

THE PRE-MEDICAL DEPARTMENT OF THE STATE UNIVERSITY.

Of all the institutions of the State there is none related more distinctly and vitally to the medical profession that the Pre-medical Department of the State University. The profession has always been deeply interested in its growth and development, and it is in a sense the child of the profession. Twenty-one years ago, in 1886, the initial step was taken when a resolution was adopted by the State Society, appointing a committee of five to confer with the Faculty of the University, as to the expediency of organizing a pre-medical department. A committee of the Faculty of which Prof. Birge was chairman, met with this committee in several conferences, and the outcome was a schedule of studies which was the beginning of the pre-medical department as it is at present, though its scope, especially of late, has been greatly enlarged. Its success and efficiency were most marked from the outset. Almost without exception, wherever its graduates have gone—to Johns Hopkins, Columbia, Pennsylvania, Rush or elsewhere, —they have been marked men, and in very many cases have been the leaders of their classes.

There could be no more convincing demonstration that the methods and training here adopted have been of the very best character, and best adapted to the ends in view. In the East our graduates have come into competition with the graduates of Harvard, Yale, Princeton, and other Eastern schools, and their success has been a source of profound gratification to the Wisconsin profession.

At Rush, and other Western schools, a credit of one year has been given to those who have completed our pre-medical course, but as yet no such credit has been given at the best schools in the East. With recent strengthening of the department in Bacteriology, Human Anatomy and Physiology, it is very likely this might have been secured in the near future, but it is now proposed to still further strengthen the department by the addition of a Chair in Pathology and one in Materia Medica—with other modifications, and make it the full equivalent of the first two years of medical study in the best medical

schools in the country. With this schedule completed and in working order, we have the assurance of members of the faculty of such schools as Harvard and Johns Hopkins, that full credit for two years will be given those who complete this course. By this plan our boys who wish to become doctors can remain in the University up to the third year of a four years' medical course, and two years' additional study will secure their degree at any of the medical schools in the country.

An appropriation for this extension of the course, and for the erection of a suitable building, has been asked of the present Legislature by the University authorities. To further the best interests of the State University—as well as that of better medical training—the profession of the State is urged to use their influence in securing this appropriation.

THE NEW YEAR.

The annual reports of the county secretaries will be due April 1st. Past experience has shown that the collection of dues for the new year should be begun early and pushed persistently. "It is the only proper system!" It seems almost impossible to get some of our medical brethren to respond in the matter of society dues. It is not so much the desire to retain the $3.00 as it is a spirit of carelessness and procrastination. See these delinquents personally, if possible, and use the telephone freely. *Don't let up* till all the old members have paid and as many new ones as possible.

For the benefit of the new County Secretaries: Put those *only* on the membership list who have paid their dues, and whose money accompanies the Annual Report. Make the non-membership list on the other side of the sheet as complete and full as possible. In some cases those have been put on the membership list who have paid the county due only. This is impossible since they cannot be members of the county society in any sense without paying the state dues as well.

Our present membership (1906) is about 1,500. Let us resolve that the 1907 roll shall contain at least 1,600 names. C. S. S.

ASHLAND COUNTY MEDICAL SOCIETY.

The Ashland County Medical Society elected the following officers for the year 1907: president, Dr. Otto Braun; vice-president, Dr. John V. Wenzel; secretary and treasurer, Dr. John M. Dodd, all of Ashland.

BARRON-RUSK-POLK COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Barron-Rusk-Polk County Medical Society held at Rice Lake, March 5, was called to order by the President, Dr. I. G. Babcock of Cumberland.

The election of officers had been postponed at the last meeting. The following officers were now elected: president, Dr. W. B. Hopkins, Cumberland; vice-president for Barron County, Dr. G. F. Tanner of Turtle Lake; for Rusk County, Dr. G. M. Lundmark of Ladysmith; for Polk County, Dr. A. L. Wells of Clear Lake.

Dr. H. H. Coleman was elected censor in place of Dr. Hopkins; delegate to State Society, Dr. I. G. Babcock; Dr. O. M. Sattre was elected secretary.

This society passed a resolution favoring the establishment of a medical college at the State University, giving the first two years of medical curriculum at the State University only, copies of this resolution to be presented to our representatives in the legislature and state senator.

Resolutions concerning Life Insurance examination fees were discussed, but no action taken.

It was decided to hold our next quarterly meeting at Spooner with Washburn, Sawyer and Burnett County Society as our guests.

O. M. SATTRE, M. D., *Secretary.*

DANE COUNTY MEDICAL SOCIETY.

At a meeting of the Dane County Medical Society held January 8, the secretary reported 80 members in good standing and a balance of $67 in the treasury.

The election of officers for 1907 resulted as follows: President, Dr. L. R. Head; 1st vice-president, Dr. P. R. Fox; 2nd vice-president, Dr. H. V. Lewis; 3rd vice-president, Dr. F. Bowman; secretary and treasurer, Dr. Julius Noer; assistant secretary, Dr. L. H. Fales; member board of censors 3 years, Dr. T. W. Evans; program committee, Drs. L. H. Fales, J. Dean, and T. W. Tormey; delegates to the House of Delegates of the State Society, Drs. P. R. Fox and J. Noer; alternates, Drs. H. A. Gilbert and F. Bowman.

The following resolution reported by Dr. Frank Edsall at the November meeting on behalf of the Committee on Commissions, was unanimously adopted and ordered printed in both the medical and the local secular press:

WHEREAS, The practice which has grown up in recent years of paying commissions by the specialist in some branch of medicine to the family physician or other person for referring patients requiring operation or other special treatment is subversive of the dignity of the profession and certain to impair the influence of the profession in the community and eventually to destroy the self-sacrificing devotion to the good of humanity and the advancement of knowledge through which all progress in the profession has come about, and to substitute for this the acquisition of money as the professional ideal, be it therefore

Resolved, That the Dane County Medical Society unqualifiedly condemns the practice of paying or receiving commissions for this purpose in any form whatsoever.

The meeting of February 19 was devoted to the consideration of a paper by Dr. J. C. Sommers on *Tetanus*, together with the presentation by Dr. R. H.

Jackson of a series of very instructive specimens of ectopic gestation from cases upon which he had performed operations for this abnormality.

Dr. George Keenan presented a series of pathologic specimens with explanation of cases from which they were removed and the results to the patient involved. Specimens were as follows. (1) Biliary calculi, (2) Carcinoma of cecum, (3) Excised gall bladder with calculi, (4) Tubercular glands of the neck.

A resolution was passed commending the establishment of the medical college to cover two years of the medical curriculum as advocated by President Van Hise.

The meeting of March 12th will be semi-public and will take the subject of *Abortion;* (1) The medical aspect, Dr. L. R. Head; (2) The legal aspect, T. C. Richmond; (3) The religious aspect, Rev. E. G. Updike, Madison; Rev. H. W. Otting, S. J., of Marquette College, Milwaukee.

J. NOER, M. D., *Secretary.*

FOND DU LAC COUNTY MEDICAL SOCIETY.

On account of the death of Dr. J. Henry McNeel a special meeting of the Fond du Lac County Medical Society was called January 23d. A committee, consisting of Drs. G. V. Mears, F. S. Wiley and D. B. Wyatt was appointed to draw up resolutions in memory of Dr. McNeel. The following resolutions were presented and adopted:

RESOLVED: That in the death of their former president, Dr. J. Henry McNeel, the Fond du Lac County Medical Society has lost an esteemed member who by his medical skill and high moral character has always upheld the dignity and high standing of the profession, and they desire publicly to express their appreciation of his honorable career and also deeply to deplore the loss of a personal friend.

His long connection with the American Medical Association, the Wisconsin State Medical Society and the State Board of Health is perhaps one of the best testimonials to his character and standing in the community. Therefore be it

RESOLVED: That these resolutions be inscribed on our records and a copy sent to his wife and the press.

RESOLVED: That we as a society attend the funeral in a body.

The regular bimonthly meeting of the Fond du Lac County Medical Society was held at Fond du Lac, March 13th. After supper Dr. F. S. Wiley was appointed to preside in the absence of the president and vice-president and the following program was given:

Causes of Strangulation of Bowels with report of two cases, Dr. G. V. Mears, discussed by Drs. Connell, Wiley and Mears; *Antiseptic Technique of Obstetrics*, Dr. F. M. McGauley; *Anomalies*, Dr. F. A. Read. Dr. H. E. Twohig presented an interesting clinical case.

F. A. READ, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The regular meeting of the La Crosse County Medical Society was held on March 7th.

Dr. E. N. Reed read a paper on *Blood Pressure and its Clinical Significance*, that covered the subject in a scientific and practical manner.

A resolution was passed by the society favoring the two years preparatory medical course in the State University, and the secretary was instructed to advise the members from this district in the Assembly and Senate to this effect.

CHARLES H. MARQUARDT, M. D., *Secretary.*

MARATHON COUNTY MEDICAL SOCIETY.

The Marathon County Medical Society met March 8th, with 16 physicians present.

The principal feature of the evening was a very able paper on *Complications of Scarlet Fever,* by Dr. Otho Fiedler, of Athens. As it was based on the reports from over 100 cases it contained much very valuable information, and brought out a great deal of discussion.

It was the sense of the Society that this was one of the most instructive and interesting meetings ever held by the organization.

S. M. B. SMITH, M. D., *Secretary.*

OUTAGAMIE COUNTY MEDICAL SOCIETY.

The annual meeting of the Outagamie County Medical Society was held at Appleton, March 5, with the vice-president, Dr. A. P. Holz, in the chair. After the consideration of several interesting clinical cases presented by Drs. Nolan, Brooks, and Ritchie, the following program was presented: *Puerperal Infections,* Dr. G. A. Ritchie, Appleton; *Pernicious Anemia,* Dr. R. B. Preble, Chicago. Both papers were very excellent and too much can not be said in praise of the one presented by Dr. Preble. The society indicated its appreciation by tendering him a rising vote of thanks. It has become the policy of the society to secure at least one outside man of note to address it at each annual meeting.

The following were elected as officers for the ensuing year: President, Dr. W. N. Nolan, Kaukauna; vice-president, Dr. H. W. Abraham, Appleton; secretary and treasurer, Dr. M. J. Sandborn, Appleton; delegate to the State Society, Dr. W. A. Shepherd, Seymour; alternate delegate, Dr. W. E. Zilisch, Hortonville; censor for three years, Dr. J. V. Canavan, Appleton.

The constitution was so amended that there will be bi-monthly instead of quarterly meetings in the future.

Drs. Reineking of Hortonville, Donaldson of Kaukauna, and Smith of Oneida were elected to membership. The applications for membership of Drs. Quick of Appleton, Fisher of Kaukauna, and Sartell of Black Creek were received and filed with the censors.

The meeting was followed by a banquet given by the local men to the visitors. The meeting was voted a success by all of the 35 in attendance.

The next meeting will be held in Seymour on Tuesday, May 7th.

M. J. SANDBORN, M. D., *Secretary.*

SHEBOYGAN COUNTY MEDICAL SOCIETY.

The regular monthly meeting of the Sheboygan County Medical Society was held February 13, at Sheboygan with 10 members and two visitors present. Dr. Pfeiffer of Sheboygan Falls and Dr. Kingsley of Sheboygan presented two interesting clinical cases. On motion the regular program was

dispensed with and the entire attention of the physicians present directed to these cases.

The regular monthly meeting for March was held on the 4th with 8 members and one visitor present.

The secretary reported that the insurance resolutions adopted January 14, 1907, had been unanimously signed by all practicing physicians in the city. A motion was made that they take effect immediately, which was carried and the secretary instructed to notify all the signers to that effect. It was seconded and carried that the minimum rate of $5 for each examination be not enforced in the case of fraternal companies for the present.

The secretary was instructed to correspond with Dr. McCormack to find out what other county societies are doing with regard to the minimum rate for fraternal insurance companies.

Drs. Zierath and Bock discussed the *Treatment of Gonorrhea;* a general discussion of the topic followed. Dr. Scheer reviewed the literature for the past month.

The next regular meeting will be on the first of April. The secretary has sent circular letters and copies of the insurance resolutions to all the physicians in the county and they are being generally signed. The circular letter is as follows:

Sheboygan, Wis., March 8th, 1907.

DEAR DOCTOR:

The following resolutions, adopted by the Sheboygan County Medical Society, have been unanimously signed by every practicing physician in the city of Sheboygan, and have gone into effect, here. You are undoubtedly aware, that similar resolutions are being signed and enforced by physicians all over the country. This is a matter of self protection. If we submit meekly to this first reduction, we may rest assured that there will be another coming. If we show our teeth, if we stand together, the insurance companies will be compelled to be just and reasonable. A copy of these resolutions will be sent to every practicing physician in the county and an earnest effort made to get his signature. When these signatures have been obtained, you will be notified. Sign the resolutions, Doctor, and thereby help yourself and all your brother practitioners.

Fraternally yours,

W. F. ZIERATH, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

(Meeting of February 12, 1907.)

Dr. J. H. Sure presented a paper on *Prolapse of the Umbilical Cord with a report of Four Cases.* In two of the cases the child lived. He urged prophlaxis by recumbent position and elevation of the pelvis when presentation of the cord is suspected before rupture of the membranes. When the cord is prolapsed if the dilatation is complete turn and extract immediately. If dilatation is incomplete and there are no pressure symptoms, wait for dilatation, watching the fetal heart sounds carefully, then turn and deliver. If the cord is compressed and replacement is impossible version and rapid delivery offer the best prospect of saving the child.

The paper was discussed by Drs. G. A. Hipke and M. R. Hewitt.

Dr. Joseph Erlanger, Professor of Physiology at the University of Wisconsin, addressed the society on the subject of *Heart Block*. He discussed the anatomy and physiology of the auriculo-ventricular bundle of His and showed by tracings and diagrams the effects on the heart's action produced by varying degrees of interference with this structure as illustrated in Stokes-Adams disease.

(Meeting of February 26, 1907.)

Dr. H. V. Würdemann exhibited a boy with nuclear paralysis resulting in complete loss of power of all the external muscles of both eyes, almost cured by large doses of potassium iodide. He also showed a case of complete hysterical blindness of one eye of 14 years duration cured by suggestive therapeutics and training.

Dr. G. A. Hipke read a paper on *Breech Presentation*. He said in part that while the maternal mortality rate is not materially affected by this condition, perineal tears are more frequent and extensive and artificial delivery is more frequently needed so that the chances of sepsis are increased. Fetal mortality is increased from the 5 per cent. seen in favorable vertex cases to about 20 per cent. The writer believes that most cases should be converted into vertex presentations by external cephalic version prior to or at the beginning of labor. The best position for this is the recumbent or dorsal with the hips slightly elevated, or, in some cases, the Trendelenburg, under anesthesia if necessary. When version has been completed engagement may be forced by suprapubic pressure or the position may be maintained by means of bandages.

He related the history of nine cases in only two of which a return to the former position took place.

Drs. P. H. McGovern, G. A. Carhart, J. H. Sure, A. J. Puls, and R. Elmergreen took part in the discussion.

Dr. G. E. Seaman presented a paper on *Ophthalmoplegic Migraine*, that form of sick headache which manifests itself by pain in the distribution of the 5th nerve, nausea and vomiting, and by paralysis of one or more of the extra-ocular muscles, sometimes by ciliary paralysis. After reviewing the pathology of the condition he reported a case.

G. A. CARHART, M. D., *Secretary*.

BOOK REVIEWS.

Diseases of the Digestive System. Edited by FRANK BILLINGS, M. D., Chicago, and translated by JULIUS L. SALINGER, M. D., of Philadelphia. D. Appleton & Co., 1906. ($5.00.)

This is an authorized translation from *Die Deutsche Klinik* and the third volume in Modern Clinical Medicine,—the first volume, INFECTIOUS DISEASES, edited by J. C. Wilson, A. M., M. D., Philadelphia, the second volume, DISEASES OF METABOLISM AND OF THE BLOOD, ANIMAL PARASITES, TOXICOLOGY, edited by Richard C. Cabot, M. D.

The interest of clinicians has in recent years been much centered upon diseases of digestion. In this book we find contributions from most of the prominent German and Austrian workers in this branch of medicine—Rosenheim, Fleiner, Leo, Strauss, Riegel, Ewald, Boas, Hirschfeld, Oser, Minkowski, Stadelmann, Kraus, Neusser, Vierordt, Strasburger, Hoppe-Seyler, Nothnagel —names that stand sponsor for the excellence of their writings.

The subjects are treated in satisfactory detail, yet are sufficiently concise to be exceedingly readable. Were we to single out any particular chapter as possessing unusual merit, our choice would fall upon the one on "Gall-Stones." Neusser's characteristic thoroughness and his mastery of detail are here in evidence. Almost the entire article is devoted to a consideration of symtomatology. Ewald's treatise on "Gastric Ulcer and Gastric Hemorrhage" is likewise most meritorious, and special mention may also be made of the article on "Diarrhea, Intestinal Catarrh and Intestinal Tuberculosis" by Fleiner, and a well illustrated chapter on "Examination of the Feces" by Strasburger. Fleiner calls attention to a prevalent but erroneous belief that calomel can disinfect the intestine. It has been shown experimentally that "by calomel—in contrast with castor oil—the bactericidal properties of the intestine were inhibited, and Strasburger found more bacteria in diarrheic stools after calomel than in those produced by castor oil."

The insignificant contributions (confined to a few brief paragraphs) of the editor of this American edition, do not entitle him to the prominence his name assumes in the book's title. If credit is due any save the writers of the articles, we believe Dr. Salinger is entitled to praise for the translation, and the publishers for their excellent workmanship, as shown in the paper, type, and general make-up of the volume.

This latest contribution to the "Modern Clinical Medicine" series receives our unqualified endorsement as being an excellent and authoritative resumé of the important diseases of the organs of digestion. A. J. P.

"Plaster of Paris and How to Use It."—By MARTIN W. WARE, M. D., of New York. 82 pp. Surgery Publishing Co., New York.

This little book will be useful to any general practitioner, who has occasion to use splints. It contains much that is not available in the text books. After rightfully condemning the plaster bandages commonly found in the shops, the author gives the method used in most large hospitals and dispensaries for their simple and practical manufacture. The monograph is positive and practical. Dismissing the consideration of plaster of Paris in fracture of the hip with a quarter of a page seems unjustifiable in a modern book. A large number of illustrations relieve the author and the reader from the necessity of going through numerous pages of what is usually vague description. The book is commended to nurses, students, and to those physicians who have not had recent hospital or dispensary experience.

H. E. D.

THE WISCONSIN
MEDICAL JOURNAL
APRIL, 1907.

ORIGINAL ARTICLES.

THE SYMPTOMS AND DIAGNOSIS OF ACUTE INTESTINAL OBSTRUCTION IN ADULTS.*

BY J. D. MADISON, M. D.,

MILWAUKEE.

The onset of acute intestinal obstruction is sudden in over eighty per cent. of the cases, and usually no exciting cause is apparent. The attacks often set in while the patient is about his ordinary occupation, or they may come on during sleep. In some cases they have been preceded by indigestion or constipation and some attacks have apparently been induced by a purge.

The patient is seized with sudden pain in the abdomen. At first the pain is colicky in character, but soon it becomes almost constant and very intense, causing the patient to double up or roll on the floor in agony. Pressure may relieve the pain and the patient often feels that if he could pass flatus or move his bowels he would get relief.

With the violent pain is associated more or less collapse, which may be profound. The pain is most often referred to the region of the umbilicus. Rarely may it be relied upon to indicate the seat of the obstruction, and the localization of the pain may be very misleading. During the early stages of the obstruction the pain is usually very intense. Later it becomes less severe and often undergoes considerable abatement. However, in some cases the original intensity persists until deadened by collapse. Often the pain ceases shortly before death, coincident with a profounder collapse, advanced intoxication or septicemia.

*Read before the Medical Society of Milwaukee County, Milwaukee, January 11, 1907.

Nothnagel believes this is often due to intestinal paralysis or perforation peritonitis. In incomplete obstruction the pain may be distinctly intermittent. Pain which has been continuous becoming remittent may indicate either a favorable termination or a transition from a complete to an incomplete obstruction.

VOMITING is a conspicuous and almost constant symptom of obstruction and is associated with much retching and distress. Occasionally it is the earliest symptom, but in the great majority of cases it comes on very soon after the appearance of the pain. It may not appear for twenty-four hours and in very rare cases it may be practically absent. When once it has set in, it nearly always persists till the end of the attack.

Everything swallowed is immediately ejected, but even though nothing is taken per mouth the vomiting continues. At first the vomitus consists of the food recently ingested, soon it is composed of greenish, bile-stained material, and finally it takes on more and more a fecal character, and this sequence in the character of the vomitus is perhaps the most important diagnostic feature of acute intestinal obstruction.

Stercoraceous vomiting is common in acute obstruction and occurs in from sixty to seventy per cent. of the cases. The period at which the vomit assumes this character varies from the second to the ninth day—with the fifth day as the mean. The cases in which the vomitus does not become fecal are those which die early or those in which the progress of the case is less acute, or where the obstruction is high up. Rarely does the vomited matter contain blood. Usually the longer the obstruction lasts, the more violent does the vomiting become, but it may cease a few hours before death. When acute peritonitis sets in early the tendency for the ejected matter to become fecal is much less.

CONSTIPATION is marked from the first and as a rule is absolute, neither feces nor flatus being passed. Rarely feces may be passed during or soon after the initial symptom, the material coming from the bowel below the obstruction. An enema almost at any time following the onset of the attack may bring away some fecal material from the colon. Flatus also, generated in the colon, may be passed in rare instances. Shortly before death or in the act of dying a more or less copious movement may be passed. There are a few recorded instances in which blood is said to have been passed in acute cases cases other than intussusception.

Treves has reported several cases with autopsies in which more or less abundant stools were passed during the course of the disease.

In partial volvulus some feces may be passed, and in advanced, though not complete obstruction, there may be both profuse diarrhea and fecal vomiting.

Naunyn has noted the evacuation of feces and flatus in obstruction by gall stones.

The constitutional symptoms are most pronounced from the very onset. The face assumes a pinched, anxious expression. Collapse may come on early and be very profound. There is great prostration, the voice is weak and muffled and a cold sweat covers the body. The patient usually dies with those manifestations which mark the termination of fatal peritonitis. The intelligence is usually retained until the last. The pulse is small, rapid and thready and varies with the general condition. With few exceptions the temperature is subnormal throughout, even the onset of peritonitis does not ordinarily affect it, but occasionally there may be a feeble reaction. At the time of perforation the temperature is that of profound collapse. The respirations are superficial and thoracic and with the distention of the abdomen the breathing may be much embarrassed.

The tongue is coated, first white and then dry and brown. There is often an offensive taste in the mouth. The mouth is parched and the thirst is most distressing. An obstinate hiccough may be present.

The quantity of the urine is usually diminished and in the most acute cases may be entirely suppressed. This condition is thought by some to be brought about largely through the nervous system, though the continuous loss of fluid by vomiting doubtless plays an important part. The urine contains albumin and casts at times, and much indican is frequently present. Jaffe believes that it may have a diagnostic significance in regard to the site of the lesion, as a marked indicanuria is much more likely to occur during the first days of an obstruction of the small than of the large intestine. Indican may be much increased in other affections.

The abdominal walls in most cases remain flaccid or in their normal condition until local or general peritonitis sets in or distention reaches a considerable degree. Even in some cases where peritonitis has been found to be present the abdominal walls have retained their normal suppleness.

Rigidity and tenderness which may be very acute usually appears with the onset of peritonitis. Tenderness may be limited or diffuse. Limited tenderness usually appears about the second or third day. This symptom has some diagnostic value since it appears to be restricted to the actual seat of the lesion. Spasmodic intestinal peris-

talsis, though a classic symptom of chronic obstruction, is rarely seen in acute obstruction.

Peristaltic movements are of course present and doubtless are often violent, especially in the early stage of the obstruction. The administration of a purge may make them much more violent and increase all of the acute symptoms, and for this reason under no circumstances should a purge be given in acute obstruction of the bowel.

Some distention of the abdomen is practically always present, but with acute obstruction of the small intestines it is relatively slight and especially so if the obstruction is high up. On the other hand tympanites is extremely marked in obstruction of the large bowel, particularly in volvulus of the sigmoid flexure.

The distention usually appears about the third day. It seems to be less marked in the rapid cases and especially so in cases attended by severe vomiting. With the onset of peritonitis, the distention becomes considerably increased. The importance of localized tympanites as a diagnostic factor has received much consideration.

Von Wahl seems to have first called attention to the fact that in intestinal obstruction due to volvulus, invagination or kinking, the coil in which the obstruction exists is the most tympanitic because this loop becomes rapidly paralysed and is distended by accumulated fluid and the gases which are generated.

This distended coil may produce local distention of the abdomen and may be felt to be tender, resistant and immovable. Abnormal quiet may also be found at this point. The findings of such a coil, which is not likely to be evident except in the early stage of the obstruction, would be of considerable value and should be looked for carefully.

DIAGNOSIS. The situation of the obstruction may at times be revealed by a careful examination of the abdomen. Hernia must be excluded as far as possible. Fatal obstruction may occur from a small portion of the gut in the external ring or in the obturator foramen or there may have been reduction *en masse*.

A thorough rectal and vaginal examination should never be neglected. The descending bowel, empty coils of intestines in the pelvis, fecal masses, gall stones and foreign bodies may be felt.

In cases of volvulus, kinking and invagination, a distended resistant and immovable portion of the intestine may be found at times, thus indicating the site of the obstruction. This symptom is not entirely trustworthy and is not always evident.

In obstruction high up there may be only slight distention of the upper abdomen, and these cases are often associated with rapid col-

lapse, intense vomiting and anuria. When the obstruction is in the ileum or cecum the distention is often central, the vomiting is pronounced and soon becomes fecal. The most extensive and general tympanites is found in obstruction of the colon. Tenesmus may be present with the passage of some mucus and blood.

These cases run a slower course, collapse does not come on so soon, and the suppression of urine is less marked. The quantity of fluid which may be passed into the large bowel may be of value in determining the site of the obstruction, as may also be the inflation of the bowel, though both of these methods are certainly open to serious error.

The nature of the obstruction is very frequently impossible to determine. Strangulation by bands or through apertures comprise more than one-fourth of all the varieties of internal obstruction. It is not common in early life but the patients are mostly young adults, who in many instances have had previous attacks of abdominal pain, an old peritonitis, or have had some operation on the pelvic viscera.

The clinical phenomena are those characteristic of acute intestinal obstruction and do not offer any clew as to the nature of the obstruction.

A tumor is said to be present in one-fifth of the cases.

In rare instances, nausea and vomiting and most of the other important symptoms of acute obstruction may be absent, as will be illustrated by the following case:

The patient, a woman about sixty-five years of age, was up and about and not complaining of any thing very definite until within a few minutes of her death, when she suddenly collapsed and died before medical assistance could be obtained.

At autopsy a loop of the ileum was found in the pelvis, strangulated by a fibrous band and completely gangrenous. This condition of the bowel had not been even remotely suspected.

The average duration of this variety of obstruction is about five days. In the less acute cases the patients have lived twelve to fifteen days.

INTUSSUSCEPTION will not be considered. *Volvulus* occurs rarely except of the sigmoid flexure and usually cannot be diagnosed. It is much more common in men than in women and usually occurs between the ages of forty and sixty years.

Nearly always there is a history of previous constipation or there may be a history of colic relieved by placing the body in a certain position. Pain is a marked symptom but is not usually so severe as in the previous form. Vomiting appears less early and is less marked. It may be absent and is often scanty, and is fecal in only fifteen per

cent. of the cases. The prostration is not so profound as in strangulation and the urine is not so much diminished. Intense thirst is not a marked feature but the patient often suffers from shortness of breath, and a sense of suffocation.

Distention of the abdomen appears early, increases rapidly and becomes extensive. Tumors of a definite character are not met with, nor are coils of intestines visible. Peritonitis appears early and as a consequence the abdominal walls soon become rigid.

In the early stages local tenderness can frequently be made out over the distended coil and it is claimed that a correct diagnosis of volvulus has often been made by detecting local tenderness, tympanites and resistance.

The average patient dies in six days, but Treves mentions a patient who lived twenty days.

In obstruction by gall stones a few patients give a history of previous gall stone colic, or of previous local peritonitis in the region of the gall bladder, indicating the time when the stone passed from the gall bladder to the bowel.

There may be several attacks of obstruction. In some cases the obstruction may be quite chronic or again it may be only partial. As a rule the symptoms are those of acute obstruction and fecal vomiting appears in two-thirds of the cases.

A tumor is rarely made out. In fecal obstruction the fecal masses can often be felt per rectum and in the colon. The symptoms are usually not so acute as in other forms of obstruction. A history of the swallowing of foreign bodies may throw light on the nature of an obstruction.

ACUTE INTUSSUSCEPTION IN INFANTS.*

BY A. W. MYERS, M. D.,

MILWAUKEE.

Of the causes of intestinal obstruction in infancy intussusception is by far the most frequent, and in the limited time at our disposal it alone will be considered. It is well to consider a subject of this nature occasionally, for cases of intussusception are comparatively rare in this country—the average practitioner will encounter them only at

*Read before the Medical Society of Milwaukee County, Milwaukee, January 11, 1907.

long intervals—and unless the subject is brought up for discussion at times we may forget to be on the look-out for it and so may waste hours of valuable time in the early stages of the condition when its recognition is of the utmost importance. Text-books change very slowly, and it may truly be said of intussusception that it has suffered much at the hands of many of them and the views which are now held by those who have had the greatest experience in its treatment are most inadequately presented on some of their pages.

In looking over reports of cases of intussusception one must be struck by the fact that the great majority of them are in young children generally less than two years of age, while over 50 per cent. of all cases reported occur in the 4th, 5th, 6th, and 7th months of life. Any attempt to explain why this should be so is of necessity somewhat speculative, but there are certain anatomical and physiological facts which are suggestive. One of the most important characteristics of the intestine of young infants is the relatively poor development of the muscularis as a result of which the peristaltic movements are much more irregular than in older children or in adults. At birth the length of the intestinal tract in proportion to body length is greater than in adult life, and yet, in order to utilize fully the natural milk diet the growth of this portion of the body is disproportionately rapid, so that by the end of the second year the ratio of intestine length to body length is even further from the adult type than at birth. While this marked growth in length is taking place there is developing a rapidly increasing disproportion between the transverse diameters of the large and small intestines. The character of the nerve supply to the intestines in early life should also be considered. The nerve supply is very rich, but the fibres for the most part are without their myelin sheaths and are peculiarly susceptible to mechanical or chemical irritation. In the early months of life the abdominal muscles are thin and weak by comparison and the intestines are thus exposed more directly to mechanical insults.

It must be remembered that the peristaltic movements of the intestines are not simply wave-like contractions propagated along the intestinal walls; they are more complex. A peristaltic contraction is a co-ordinated act and is characterized by a process of contraction behind the object and a process of inhibition and relaxation in front of the object. Stimulation of any portion of the gut either from within or from without causes contraction above the point of stimulus and relaxation below the point of stimulus.

A comparatively slight excess of contraction at any point with an unusual degree of relaxation immediately below it will cause the

upper portion of the bowel to slip within the grasp of the lower and an intussusception has developed. *Intussusception is the result of irregular peristalsis.*

Thus we see that at the time when the majority of cases of invagination occur the conditions are exactly those which we would theoretically expect to be most favorable for its development: a rapidly lengthening bowel, with a poorly developed muscular layer in which the peristaltic movements are still irregular, a large intestine which is increasing in diameter much faster than the small, a rich and extremely sensitive nerve supply, the whole poorly protected from internal and external irritants which might disturb the already uncertain character of the peristaltic contractions.

The part played by previous digestive disturbances in the production of invagination is uncertain, but the frequency of its occurrence in some localities is so much greater than in others that the conclusion seems unavoidable that methods of feeding have something to do with it. Beyond this indefinite statement one can hardly go. It may occur in the course of an acute gastro-intestinal disturbance, but on the other hand, it is frequently seen in healthy breast-fed children who have had no digestive difficulties. In many cases external violence is undoubtedly an important causative factor,—dancing a child up and down violently to quiet its crying has produced many cases, a careless manner of picking up and carrying a child over the arm has apparently been responsible for some cases, perhaps by causing a temporary paraysis of some portion of the canal.

Invagination may take place in any portion of the bowel and the usual classification divides the cases into four groups: first, iliac or enteric, in which only the small intestine is involved; second, colic, in which the large bowel only is affected; third, ileo-cecal, the commonest form in which the ileo-cecal valve is at the apex of the intussusceptum, dragging the ileum behind it and inverting the cecum into the colon with its further progress; fourth, ileo-colic, in which the ileum slips through the valve into the large bowel. This last form is fortunately the rarest for it is the most rapidly fatal on account of the completeness of the strangulation. It must be remembered that the last inch of the ileum presents a distinct thickening of the circular muscular coat which forms a sphincter at this point and in this form gives added force to the contractions cutting off the circulation in the invaginated bowel.

It is not improbable that a slight degree of intussusception which speedily corrects itself is fairly common as a cause of acute colic in

infancy. But when the invaginated bowel has extended into the receiving portion far enough to be well within its grasp the tendency to spontaneous return to the normal condition is almost nil. The lumen of the bowel becomes obstructed, in an effort to overcome the obstruction excessive peristalsis occurs above this point as is shown by the condition frequently seen at operation in these cases, where the bowel for a foot or more immediately above the intussusception is contracted down to a hard cord even when great distension exists higher up. This increased peristalsis has the effect of jamming the invagination even farther and more tightly into the intussuscipiens. The greater the progress of the intussusception and the longer its duration the more interference is there with the circulation in the invaginated gut and the greater the thickening and edema which take place in its walls.

Adhesions, more or less dense, form between the peritoneal surfaces forced into such close apposition. After a time, the length of which varies with the situation of the intussusception and with its character, the circulation is cut off entirely and gangrene of the invaginated bowel takes place. In some few cases peritoneal adhesions of sufficient strength have formed to permit recovery after sloughing and separation of the gangrenous portion of the bowel, but the mortality when left to nature's care is 98 per cent. and even the most rudimentary methods of treatment give far better results than that.

The classical symptoms are pain, vomiting, mucus and blood in the stools, tenesmus, and the presence of a tumor usually described as sausage-shaped; but he who waits for the development of this complete picture will fail to make the early diagnosis the condition demands.

When the condition has been preceded by an acute gastro-intestinal disturbance the onset is not always clear, but a little care in questioning and a little patient watching will usually clear the diagnosis, if the possibility of intussusception is borne in mind.

In most cases a history can be obtained of the sudden onset of sharp abdominal pain in a previously healthy infant or young child, he rolls screaming on the floor or in his bed and is found with the legs doubled up and his hands clenched. From the beginning there is a collapsed appearance which is of great value in making the diagnosis.

The distress is not constant in most cases but comes on in paroxysms and in the intervals the child may lie quite placidly although usually the collapsed appearance persists. During the intervals the

abdomen may be soft and not tender, for the distension of the bowels usually takes place only after some hours.

Unless there has been some preceding febrile condition the temperature is ordinarily normal or sub-normal.

Vomiting is present early in only about 25 per cent. of the cases and is most frequently seen when the obstruction is high up. The contents of the bowel below the invagination may be passed after the onset of the pain and may be perfectly normal in appearance. However, after a few hours, the examining finger in the rectum will usually be stained with bloody mucus even when nothing of this sort has been passed spontaneously. This is one of the most valuable signs and is present in about 80 per cent. of the cases. Tenesmus is usually due to the presence of the intussusceptum in the sigmoid or rectum and so is of no value as an early sign in most cases.

A palpable tumor is found in only about 50 per cent. of the cases. Even when large enough to be detected it may be under the ribs or covered by the liver in such a way as to be entirely out of reach. The ileo-cecal and colic varieties may be detected in the rectum in some cases, but this, too, is a late symptom in most instances. There is no need to discuss the changes in the clinical picture which take place as time passes,—these are well described in the text-books.

The outcome of the case depends largely on our early recognition of the condition and we should be able to make the diagnosis in the presence of the sudden onset of acute abdominal pain without discoverable cause, the evidences of collapse, and the discovery of bloody mucus in the rectum. Few of us can expect to make as early a diagnosis as the late Dr. Christopher did in one case in which there was simply great depression but no vomiting, no bloody stools, and very little abdominal distress. Operation proved the correctness of his opinion and recovery followed. For most of us a little longer delay will be necessary but in every case it should be as short as possible, for, as will be shown later, an early diagnosis largely determines the fate of the patient.

Until within the last twenty years the question of treatment has been very much as it was left by Praxagoras of Cos, three hundred and fifty years B. C. Distension by air or water was tried as recommended by Hippocrates, and finally, if this failed after days of persistent effort, as a last resort surgical aid was attempted. The mortality under these methods of treatment was fairly represented by the figures given by Leichtenstern (Schmidt's Jahrbuch, Vol. CXLVI, p. 7) in his elaborate statistics, published in 1874,—about 86 per cent. Surgical intervention under these conditions was so uniformly fatal

that many capable men considered it unjustifiable under any circumstances. But a consideration of the fact that intussusception is a mechanical obstruction, not complicated in the beginning by any incurable pathological condition of the bowel, kept alive a hopeful spirit in the minds of the surgeons, and persistent efforts were made to get the cases earlier. As the records of operative cases accumulated and were carefully studied it became evident that the factor influencing the mortality was not so much the tender age of most of the patients, but far more the conditions within the abdomen which for one reason or another made reduction of the invagination an impossibility. When it was possible to reduce the intussusception and close the abdomen the mortality was found to be 36 per cent. in one hundred and twenty-six cases collected by Gibson (Arch. of Pediatrics, Feb., 1900); while in fourteen cases in which reduction was impossible the mortality was 64 per cent, and in twenty-three cases where gangrene had occurred the mortality reached 95 per cent. The tremendous difference in favor of the reducible cases is manifest. When we ask ourselves what we can do to prevent cases from becoming irreducible the answer is not far to seek. Again Gibson's statistics help us. Of the cases operated upon on the first day only 6 per cent. were irreducible; of those on the second day, 17 per cent.; of those on the third day, 40 per cent.; on the fourth day, 60 per cent. Could anything demonstrate more plainly the effects of delay? The mortality rate is closely parallel: operations on the first day gave a mortality of 37 per cent.; second day, 39 per cent.; third day, 61 per cent.; fourth day, 67 per cent.; fifth day, 73 per cent.

As Wiggin (*Lancet,* Aug. 28, 1897,) pointed out, these figures include many cases operated on before the days of modern surgical technic, and he estimates the mortality as being at present not over 22 per cent. The difference made by early recognition and prompt operation is well illustrated by the report of Clubbe (*Brit. Med. Jour.,* June 17, 1905,) on one hundred operations which he has performed. In the first fifty cases the mortality was 50 per cent., the average duration of the condition in those that lived was 28 hours, in the fatal cases 68 hours; in the second fifty cases operated upon between 1901 and 1905, the mortality was 24 per cent., the average durations 23 hours, and 48 hours respectively. He attributes the improved results in the later series entirely to more prompt recognition and surgical intervention. These last figures are not at all exceptional, smaller series of cases have been reported by individual operators in which the mortality has been but 9, 12, or 15 per cent., but 24 per cent. probably represents about what may be expected in any extended series. In a

very incomplete study of the literature since the compilation of Gibson in 1900, I have collected reports of one hundred and thirty-seven operative cases with a mortality of 24 per cent., but the fact that the average duration in the cases recovering was over 30 hours shows that the cases are not yet brought promptly enough for surgical treatment.

What, in brief, does all this mean? Nature, if left to herself, will cure 2 per cent. of the cases, distension by air or water will cure 25 per cent., prompt surgical treatment should cure from 70 to 80 per cent.

Distension with air or gas has been practically abandoned. Distension with water fails in 75 per cent. of the cases in which it is tried, and yet it is a useful measure when properly applied. To briefly outline the course which seems to have produced the best results will save much time. As soon as the diagnosis is made the child is placed on the operating table and prepared for operation; there, under full anesthesia, irrigation is used (except in hyperacute cases) the reservoir being elevated about eighteen inches, and never more than three feet above the level of the buttocks. During irrigation the operator should keep his hand on the intussusception if this can be palpated, and if he can be *positive* that complete reduction has taken place under the influence of the irrigation, operation may be *postponed,* keeping the patient under careful observation. In not more than 10 per cent. of the cases does this definite reduction occur, in the remaining 90 per cent. the operation should at once be performed, but the preliminary irrigation will have helped in most cases by causing a partial reduction of the invagination and so diminishing the amount of handling necessary. Used in any other way irrigation is pernicious since it exhausts the patient and wastes valuable time during which a reducible condition may pass over into an almost hopeless one. Even more harmful is the use of purgatives, which by increasing peristalsis above the obstruction will force the intussusception more firmly than ever into its sheath. Opium is dangerous as it will often mask the symptoms without relieving the obstruction. When the condition is suspected but a positive diagnosis is impossible for a few hours, it is far safer to use some of the belladonna preparations in the hope of relaxing the spasmodic condition of the intestinal muscles, at the same time applying large hot compresses to the surface of the abdomen. But as soon as the diagnosis is reasonably sure the surgeon's aid should be secured in order to give the patient the best possible chance for his life. Conservatism means operative intervention; trusting to distension is taking unjustifiable risks with your patient's life.

CONDITIONS SIMULATING INTESTINAL OCCLUSION DUE TO MECHANICAL OBSTRUCTION.*

BY WILLIAM ACKERMANN, M. D.,

MILWAUKEE.

The term "intestinal obstruction" or "ileus" is so frequently used to designate an obliteration of the lumen of the bowel, and in such a large percentage of cases presenting the characteristic symptoms of an intestinal occlusion do we find mechanical obstructions, that we are apt to lose sight of the fact that there are diseases which sometimes simulate a mechanical obstruction but which in reality do not cause the slightest interference with the permeability of the bowel. This is precisely the condition found in a paralysis of the intestine. Although not narrowing or obstructing the lumen, it may produce symptoms very similar to those of a mechanical obstruction. For this reason the ileus is frequently classified into two divisions: first, the mechanical ileus comprising obstructions such as volvulus, strangulation, invagination, etc., and, second, the paralytic ileus due to an absence of intestinal contractions. To this classification Murphy added a third form which he called "dynamic ileus," by which he referred to an intestinal obstruction brought about by severe spastic intestinal contractions such as we see in lead poisoning or in enterospasm.

The diagnosis of an intestinal obstruction is usually comparatively easy, but the differentiation between its etiological factors and pathogenesis presents greater difficulties, as, immaterial what the cause may be, whether mechanical, paralytic, or dynamic, the clinician is confronted with a train of symptoms common to all.

The paralytic ileus may be brought about, first, by purely functional disturbances or, reflexly, by injuries to the spine or abdomen and its immediate neighborhood; secondly, by anatomical changes occurring in the intestinal canal or mesentery; and lastly, by bacterial toxins.

All the symptoms of an intestinal obstruction may appear suddenly in consequence of an intestinal paralysis occurring some time after a laparotomy, especially after operations upon the mesentery and intestines, and the experiments performed by Murphy tend to prove that such paralyses are largely due to injuries to the lateral artery. He likewise believes that the paralysis following the reduction

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of strangulated herniæ, especially femoral, are due either to injury of this artery or to a thrombosis of the veins.

During the course of infectious diseases and even in uremia, symptoms of occlusion have appeared as a result of an intestinal paralysis due to toxins. The same may take place after traumatism or fractures of the spine, or after injuries to the afferent nerves due to blows upon the epigastrium, particularly such as caused by blunt instruments.

The most frequent cause of intestinal paralysis is peritonitis occurring either in the form of a general infection or as a circumscribed inflammation of the peritoneum. Even at the very beginning of this disease, the paralysis of a peritonitis may closely simulate a mechanical intestinal obstruction, as both affections may be ushered in with intense abdominal pain and absolute constipation. At the beginning, the presence of fever, steady abdominal pain which is intensified upon pressure over the abdomen or by the slightest movement of the patient, and an early leucocytosis point to a peritonitis; while frequent attacks of tetanic intestinal contractions, possibly localized, associated with severe colicky pains, and, the patient being comparatively free from pain during the intervals between such attacks, rather indicates an obstruction.

The presence of indicanuria may also be taken into consideration. This naturally can only be applied in the early differential diagnosis between peritonitis and obstructions of the large bowel, as in obstructions of the small intestines we find an excessive amount of indican in the urine as early as in peritonitis.

Later the character of the developing meteorism may prove an important factor in the differential diagnosis, the meteorism of a peritonitis being usually more general while that of an obstruction is, at the start, apt to be more localized, beginning in the intestinal coil immediately above the obstruction and gradually progressing upward. After the tympanites has once become general, it obscures rather than aids in the diagnosis, and it may then be impossible to differentiate between a mechanical intestinal obstruction complicated with a peritonitis and a primary peritonitis causing an adynamic occlusion. The meteorism, inasmuch as it inhibits the absorption of gases and at the same time intensifies the paralysis of the intestinal musculature by over-distention, constitutes in itself a cause for further gaseous accumulation and must consequently be looked upon as an unfavorable sign.

Embolism and thrombosis of the mesenteric vessels are extremely rare conditions and may, through circulatory disturbance, cause an

intestinal paralysis. In the absence of excessive enterorrhagia, the diagnosis of a mechanical intestinal obstruction is likely to be made, as all the symptoms of an acute intestinal occlusion are usually present. Embolism of the superior mesenteric artery constitutes the greater portion of those cases and, as a large percentage of these have been found to be associated with an endocarditis, the latter, especially when associated with present or preceding symptoms of embolism in other parts of the body, severe intestinal hemorrhage, and low temperature, might possibly indicate a mesenteric embolism, but the clinical picture so closely resembles that of an intestinal obstruction that the correct diagnosis is rarely made except at the time of the laparotomy or autopsy.

Quite a large number of cases of acute hemorrhagic pancreatitis have been reported during the last few years presenting all the symptoms of an acute intestinal occlusion in which the correct diagnosis could only be made by the abdominal exploration which was undertaken for a supposed intestinal obstruction. Sudden crampy pains, especially in the upper part of the abdomen, associated possibly with a tumefaction in the region of the pancreas, leading rapidly to extreme collapse, might enable one to suspect this disease. The history of alcoholism, syphilis, preceding attacks of cholelithiasis, jaundice occurring possibly with fever, and an existing arteriosclerosis, may give weight to such suspicion. Further than this I do not believe that we have any single distinguishing sign or reliable differentiating symptom upon which we can base a positive diagnosis of acute hemorrhagic pancreatitis.

Symptoms of intestinal occlusion have been observed in association with biliary colic and such attacks were usually attributed to a paralysis of the intestines, but the cases reported by Pantzer show conclusively that the occlusion need not necessarily be due to a paralysis but might be caused by spastic contractions of the intestines, brought about reflexly by the irritation of the gall-stones. This, at the same time, may explain some of the cases of obturations due to gall-stones in which the stones were so small that they alone could hardly be held responsible as the cause for an occlusion of a normal bowel. The observations of Haidenheim, Fells, Strauss, and others, demonstrate that enterospasm due to other causes—some of which could not be located—may give rise to the complete clinical aspect of a mechanical obstruction, the correct diagnosis often not being made until at the time of the laparotomy. What might at times be especially misleading are the contracted parts of the colon which may simulate small cylindrical tumors, sensitive to the touch, and capable of being

moved from side to side. These, together with the entire train of symptoms characteristic of an intestinal obstruction, can easily give rise to grave errors in diagnosis.

The history of the patient is of great help in this condition, as the patients are generally hysterical or neurasthenic individuals who have usually had previous attacks of lesser severity either in the same or some other part of the intestines. The course of this disease is quite characteristic. The attacks may come on three or four times during the year, and in the interval the patient may be absolutely free from all distress, excepting, perhaps, nervousness and constipation, or occasional slight pains lasting but a few moments. The attacks themselves vary considerably, lasting from a few days to three or four weeks, then gradually disappearing. On exploration the affected portion of the intestine is found firmly contracted, anemic and hard, but free from any inflammatory process. Usually no adequate cause for the contractions can be found, but cases are reported in which the contraction was found to be brought about reflexly by the irritation of gall-stones, ascaris lumbricoides, etc.

Other diseases such as renal colic, appendicitis, and enteritis sometimes simulate an incipient obstruction.

In all of these diseases, as in the mechanical obstructions, cathartics are positively contraindicated. In embolism of the mesenteric artery and acute hemorrhagic pancreatitis, the medicinal treatment can only be symptomatic and surgery offers the only chance to the patient.

Contrary to the mechanical obstructions, the treatment of enterospasm is not a surgical one. Naturally, if any causes for the spasmodic contraction can be found they should be removed, otherwise the treatment should be directed towards allaying the intestinal spasms. Consequently all measures must be avoided which have a tendency to irritate or indirectly cause an irritability of the bowels. If the pains are severe, opium may be resorted to, but the administration of belladonna is far preferable. The action of the latter drug is especially adapted to meet the indications of these spastic conditions, as it not only alleviates the spastic intestinal contractions but at the same time stimulates the normal peristalsis, thereby promoting spontaneous evacuation.

Both opium and belladonna must be used with great caution and only after we have positively excluded the mechanical obstruction should we administer these two drugs to their physiological limit. Though they may be used to advantage in the mechanical obstructions

and even promote a cure, great care should be exercised in their administration as they may effect apparent cures by allaying both the objective and subjective symptoms, while the local pathological changes are making rapid progress. In thus masking the clinical course of the disease much valuable time may be lost by the postponement of an urgent operation.

THE PATHOLOGY OF ACUTE INTESTINAL OBSTRUCTION

WITH ESPECIAL REFERENCE TO INTESTINAL MOVEMENTS AS FACTORS IN THE PRODUCTION OF OBSTRUCTION AND IN THE SPREAD OF INFECTION.*

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I. INTRODUCTION. Anatomico-pathological data must ever remain of prime importance in any discussion of the pathology of intestinal obstruction. The degree of obstruction, whether a stenosis or an occlusion, and the extent of the interference with the blood supply of the intestinal wall, form the basis of the prevalent classifications and have not failed to receive full discussion. In the present paper it is proposed to consider the rôle of intestinal movements, normal and abnormal, in the causation of intestinal obstruction, in the production of the special signs and symptoms which arise in the course of the condition, and especially as factors in the passage of infection through the intestinal wall and its spread in the peritoneal cavity.

II. NORMAL INTESTINAL MOVEMENTS. Under this term are included normal peristaltic movements, swaying movements, rolling movements, and the less common antiperistaltic movements.

1. Peristaltic Movements. These consist of wave-like circular contractions following wave-like dilatations of the circumference of the intestinal wall, in the form of a diphasic wave, according to Mall. Both muscle layers contract and relax simultaneously, according to Bayliss and Starling. The recent work of Magnus has demonstrated that the movement is best explained as a local reflex action, contraction of the muscle occurring under the stimulus of food, intestinal juices, gas, and less commonly after other stimuli. The stimulus of the muscle wave is transmitted through the local nervous mechanism of the plexus of Auerbach. Muscular transmission probably does not occur,

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at least not under normal conditions. Section of the muscle stops the wave, in contradistinction to the non-interference with the progress of the muscular contraction when the reflex occurs through the higher centers, as in the oesophagus, in which section of the muscle does not interfere with the continuation of the contraction below the section. In Mall's experiments the peristaltic wave was observed to pass from upper segment to severed lower segment, after suture and healing, but not in the case of reversed segments, in which peristalsis continued in the usual direction with reference to the segment. This caused some reversal of the flow of fluids, and if the reversed segment was of considerable length, and especially if the intestinal contents were at the same time of rather solid consistence, obstruction resulted. Nothnagel quotes a number of observers who seem to have secured different results; in some cases obstruction not resulting even when almost the entire gut was reversed. Aside from the purely scientific interest of the problem, the question of the possibility of the reverse transmission of the stimulus is of especial interest in determining the character of abnormal intestinal movements and antiperistalsis will be further considered under that head.

Normal peristaltic movements occur as follows:

(a) Location: they occur in both the small intestine and the colon, being more irregular in the latter.

(b) Extent: a peristaltic wave does not traverse the entire length of the intestine, but ends after passing a short distance. Abnormal peristalsis consists of more forcible contraction and more rapid waves, which traverse greater lengths of the bowel.

(c) Sequence: in irregular series, from above downward, as determined by the presence of intestinal contents.

(d) Rapidity: rather slow, 2½ cm. in 3 to 30 seconds.

(e) Use: to produce slow onward motion of food.

(f) Control: these movements which are commonly a reaction to a local reflex, occasionally as a result of direct stimulation of the muscle. Central control, both acceleration and inhibition, has been observed.

2. Swaying Movements,—the pendulum movements of Ludwig, —the waving movements of Raiser.

These are rhythmical longitudinal contractions and relaxations of small segments of the intestine, not accompanied by changes in the size of the lumen of the tube, a form of *beating* of the intestine. Successive loops of the intestine are involved in a form of rhythmic segmentation, the portion taking part in the rhythmic movement being

segregated by constrictions. These movements are independent of peristalsis.

(a) Location: in both upper and lower portions.

(b) Extent: short lengths of intestine involved.

(c) Sequence: the movements follow the movement of the food from above downward.

(d) Rapidity: much more rapid than peristalsis, 2 to 5 cm. per second.

(e) Rhythm: 13 to 30 per minute.

(f) Control: Wilms states that these movements occur in either direction, and that they are not stopped by injury to the local nervous mechanism. Magnus denies the possibility of muscular transference.

(g) Use: to produce back and forward movements of the food, to mix it thoroughly with the digestive secretions, and to bring the digested food in contact with new absorbing surfaces. The experiments of Gruetzner and of Cannon have demonstrated that these movements do not cause a forward movement of food from segment to segment. Food mixed with bismuth subnitrate or containing pellets of the same substance was observed in its passage through the gut by means of the x-ray, and was found to have a limited to and fro motion only. These movements also aid, according to Mall, in evacuating the blood from the venous sinuses. Cessation of the pendulum movements is therefore a factor in the production of venous hyperemia.

3. Rolling Movements. In this form of movement, segments of varying length, often long, are propelled forward with a rolling motion, causing a form of peristaltic storm. The movement is an exaggerated and rapid peristaltic wave of diphasic nature, causing rapid onward movement of intestinal contents.

(a) Location: in both the upper and lower tracts.

(b) Extent: lengths of 25 cm. involved.

(c) Rate: the most rapid intestinal movement, varies with the strength of the stimulus.

(d) Control: movements of this kind appear to result as a reflex from strong local stimuli, such as the pressure of accumulated gas and fluid. They often occur without definitely observable cause, and may be inhibited by strong emotion.

4. Antiperistalsis. Antiperistalsis, or reversed peristalsis, is a form of intestinal movement in which a diphasic wave passes upward (*i. e.*, away from the anal end). It has not been observed under normal conditions in the small intestine of man or animals. The x-ray experiments of Cannon seem to justify the statement that antiperis-

talsis occurs in the colon. Nothnagel, however, denies that antiperistalsis occurs in the colon as a reaction to physiological stimuli. The reversed currents observed in the colon seem to be better explained as return mucus currents, caused by the irregularity of peristalsis in the lower bowel. These reversed currents are of importance in aiding the absorption of fluid slowly introduced into the bowel.

III. ABNORMAL INTESTINAL MOVEMENTS. I. Peristaltic Storm. This term is given to a modification of peristalsis in which the movements are more energetic, more rapid, and cover a greater extent. Rapid onward motion of intestinal contents is secured,—the name 'peristaltic storm' is also applied to abnormally active movements of other types.

2. Reversed Sequence of Peristalsis. This occurs in the distended bowel above an obstruction and is a factor in the production of fecal vomiting, in which antiperistalsis seems to play little part. Reversed sequence of peristalsis, with localized distension above an obstruction, results in the transference of fluid to higher levels.

3. Antiperistalsis. This form of movement is rarely observed, even under abnormal conditions. Nothnagel has made the interesting observation that direct stimulation of the intestinal wall with a crystal of common salt or with a concentrated salt solution results in the formation of a wave which passes upward. Stimulation with potassium chloride, on the contrary, produces a local contraction only, the transference of the stimulus being prevented by the inhibiting action of the potassium salt on the local nervous mechanism. Introduction of hypertonic salt solution into the lower bowel produces antiperistalsis. This may explain the results occasionally secured in the treatment of obstruction with enemata of hypertonic salt solution. Introduction of salt solution, even if concentrated, by mouth causes only increased peristalsis. The factor of non-physiologic application of an abnormal stimulus seems necessary for the production of an antiperistaltic wave. Such conditions must occur in obstruction. The occasional occurrence of invagination of a lower segment of the intestine in an upper segment could be explained as a result of antiperistalsis, the rare occurrence of the pathologic condition agreeing with the rare observation of antiperistalsis. Vomiting of formed fecal elements seems to necessitate the postulate of the occurrence of antiperistaltic movements, but this phenomenon is again of rare occurrence.

4. Rolling Movements. The rolling movements already described are regarded by many observers as related to abnormal movements. Peristaltic storms in which exaggerated rolling movements occur are definitely abnormal in character.

5. Tetanic Contractions. These are always abnormal, and are often painful in character, in marked distinction to peristaltic movements, which are without sensation. Tetanic contractions have been observed experimentally in animals, when the intestines, though empty, have been exposed to air. They occur more commonly in obstruction as a form of spasm in intestines filled with gas and fluid. These contractions may be visible and palpable through the abdominal wall.

6. Vermicular Contraction. This term is applied to an energetic and rapidly progressive wave of the peristaltic type, caused by cold, anemia, or the presence of gas. This form of movement is regarded by Mall as a special type, but it seems closely related to abnormal forms of the rolling movement.

IV. INFLUENCES WHICH AFFECT INTESTINAL MOVEMENTS, NORMAL AND ABNORMAL. 1. Nervous Control. Intestinal movements are best explained as a local reflex through the plexus of nerves lying in the muscle wall. Exceptionally the movement is determined by direct stimulation of the muscle wall. Muscular transmission is debatable. Acceleration of the movement is not entirely independent of central control, but usually is determined by the direct excitation of increased intestinal contents. Experiments bearing upon the question of the central control of intestinal movements do not agree, but a marked inhibitory influence has been demonstrated.

2. Pressure. Inert bodies act by pressure, also by producing temperature changes. Thus enemata thrown into the large bowel may stimulate increased peristalsis in neighboring loops of the small intestine above an obstruction by the pressure of the fluid and by induced changes in temperature. Distension by gas, when not extreme, produces violent peristalsis. Hydrogen and nitrogen gas act by pressure only, carbon dioxide and hydrogen sulphide have a direct action on the muscle. Overdistension with gas may produce spasm or even paralysis. Anemia decreases motility, hyperemia increases it, acting partly by pressure. Effusion increases movement by increasing the intestinal contents, partly also by the pressure of the fluid in the tissues. With infarction, the intestine is paralyzed in a partly distended condition.

3. Drugs. Opium has a marked retarding effect upon intestinal movement. Its mode of action has not been definitely determined. Nothnagel considers that the slowing of movement is determined by a stimulation of the higher inhibitory centers. The rapid effect of the alkaloids of opium when injected hypodermically, before time is allowed for their secretion into the gastro-intestinal tract, supports

this theory. Others attribute the slowing of movement to an inhibition of the local nervous mechanism.

Belladonna likewise acts upon the local mechanism, causing a relaxation of the intestinal wall, and has been claimed to be of value in the treatment of obturator obstruction.

The vegetable cathartics act either by local irritation, in large doses as inflammatory agents, or indirectly, by increasing the fluid contents. Their action and dosage in the experimental animals is subject to much variation. The saline cathartics act definitely by increasing the fluid contents of the bowel, by osmosis, causing a flow of fluid into the bowel. Direct stimulation of the muscle is also secured by concentrated salt solution.

4. Bacterial products may cause increased and abnormal intestinal movements. Skatol when applied to the intestinal wall, produces contraction. Changes in the bacterial flora of the intestine in the abnormal conditions of intestinal obstruction increase gas production and by pressure cause abnormal movements. The increase of gas is marked and cannot be accounted for entirely by its retention by the obstruction nor by its decreased absorption. The various types of colon bacilli vary much in their capability of producing gas, especially from starch. There is also considerable variation in the amount of gas formed, and in the proportion of inert and active gases. A change in type from a fecal to a putrefactive type of fermentation is accompanied by increased gas production, and by an increase in the ratio between active and inert gases. Roos has made an interesting and apparently successful therapeutic application of the principle of a change in the type of intestinal fermentation, and has successfully treated constipation by introducing more active colon bacilli into the intestinal tract. The method is clearly of limited application, but illustrates the effect of bacterial products upon movement.

V. Influence of Abnormal Intestinal Movements in Producing Localized Asymmetry and Localized Meteorism.

Under this head it is not proposed to discuss localized asymmetry of chronic form of obstruction accompanied with hypertrophy of the intestinal wall above the obstruction.

Localized distension from fluid and gas occurs more readily in an intestine which at the time of the formation of the obstruction already contains some food. It may result in the empty gut, when the obstruction is such that marked venous hyperemia results. In this condition the intestinal wall becomes suffused with fluid, which is poured on both serous and mucus surfaces and accumulates in the bowel. The accumulated fluid stimulates peristalsis which in turn

causes an increased flow of fluid from the engorged wall. The intestinal contents ferment, and the pressure of the retained gas and fluid causes gradually increasing and finally abnormal movements. Thus a *circulus vitiosus* is formed; increased peristalsis increases the intestinal contents, these in turn stimulate increased movement, and so on until the pressure of the contents causes paralysis of the bowel. The distension may at first be well localized. The marked increase of the movements and the reversal of their sequence, and the impossibility of the passage of fluid below the obstruction results in its transference to upper segments. Antiperistalsis may occasionally be a factor, but the reversal of the sequence of peristalsis is the commonly observed cause. Vomiting at first acid, then bilious, then fecal, supervenes when the fluid accumulates in the upper segments and is expelled by their contraction. It is conceivable that formed fecal elements could be carried by fluid without antiperistalsis.

VI. INFLUENCE OF ABNORMAL INTESTINAL MOVEMENT IN PRODUCING OBSTRUCTION.

This is a well recognized factor. Movements are more important causal factors in the production of obstruction when acting in conjunction with other conditions, such as those produced by unusual anatomic conditions. Animals with short intestines rarely suffer from obstruction. Loss of the tone of the muscle walls, weakness, and sluggishness are factors in obstruction from constipation and fecal impaction, which occurs in the more sluggish large bowel. Senn's experiments demonstrated that obstruction from the presence of foreign bodies in the dog's intestine was produced with some difficulty, since the muscular power of the dog's intestine is sufficient to move large objects which fill and even distend the lumen.

Abnormal rolling movements, especially if occurring in loops of intestine supplied with abnormally long mesentery, tend to produce volvulus. Adhesions, by abruptly checking or altering the direction of movement, are important aids. With partial obstruction, increased movements above tend to remove or to render it complete. The pressure of fluids brought down by the increased intestinal movement or of fluids injected below will straighten the bowel, if the pressure can be brought to bear upon the twisted loop. In complete obstructions, this pressure is often greater than can be secured by intestinal movement, even when abnormal, and it is applied from below at a risk of injury to the bowel wall. If fluids cannot pass the obstruction, and pressure is applied at the point of obstruction, it merely aids in completing the strangulation.

Invagination may result from a sudden stoppage of an abnormally active peristaltic wave, especially where such a wave is accompanied by rolling movements, as in a peristaltic storm. The contracted portion of the gut is carried forward into the dilated portion, the wave telescopes. This occurs more easily at points where motion is apt to cease, as at the ileo-cecal valve, or where motion is interfered with, as at points of adhesion, and in the locality of abnormalities such as diverticula, polypi, etc. Invagination of small lengths of intestine seems often to occur physiologically, and to resolve without obstruction. The usual intestinal movements are often sufficient to straighten the intestine, even at times after adhesions are formed. Pressure applied below may have the same effect. The early pathological changes which follow the disturbed blood supply render it expedient to use such measures with caution.

Obstruction by bends may be determined by increased movement, acting upon a portion of intestine in which movement is limited by adhesions. The pressure of increased movement, brought to bear on the angle of a bend, may produce ischemia, as shown by Senn.

In the production of obstruction in a loop of intestine, as by bands of adhesions or by necks of hernial sacs, abnormal movements play an important part. Given a loop of bowel constricted by a band of adhesions, interference with transmission of a muscular wave and with the onward movement of the intestinal contents mainly at two points, at that of entrance, and at that of exit. Increased peristalsis occurs in the segment of the constricted loop just above the constricting ring. Intestinal contents, if present in the loop, accumulate at this point until increased peristalsis is sufficient to force the contents through the constricting ring, a portion of the gut also passing the obstruction at the same time. This process continued may release the intestine from the obstruction. If the pressure of the constricting ring is too great to be overcome by increased peristalsis, the force of increased movement is brought to act upon the portion of the gut in contact with the ring and ischemia results, with cessation of movements from paralysis. Likewise increased movement in the segment of the bowel just above the upper point of constriction results in a movement of fluid and bowel into the area of the constricted loop. This movement is not interfered with so early nor so completely by ischemia; therefore, increased intestinal movements in an obstruction of this type tend definitely to increase the obstruction. The increase or relief of the obstruction depends upon the balance between the pressure of the constricting ring and that of the intestinal contents in the constricted loop.

VII. The Transference of Infection.

Since complete acute obstructions are either inflammatory from the beginning or early tend to become so, marked and immediate alterations in the intestinal wall commonly occur; hence the question of the passage of infecting agents through the intestine becomes of importance. Numerous observers have found bacteria in the chyle and portal blood of normal animals. Neiszer and Opitz found chyle uniformly sterile. The studies of Birch-Hirschfeld indicate that pathological changes in the intestinal wall, at least in the mucosa, are necessary for the passage of bacillus coli as an infecting agent. Würtz and Hudelo found, however, that so simple a change as a congestion following large doses of alcohol was followed by the finding of bacteria in the peritoneal cavity. Buchbinder, in a review of the available data, states that bacteria are found in the fluid of hernial sacs in 40 per cent. of cases. The peritoneum clearly has the power of successfully overcoming a certain amount of infection. Albeck, in 51 cases of strangulation of the small intestine in man, found no peritonitis in 19. In 25 experimental cases in animals observed by him, in 10 was he able to trace the infecting agent which had caused peritonitis, and to demonstrate that it had passed through areas of necrosis in the intestinal walls. Borszéky and v. Generisch experimented with rabbits and found that in 10 cases, after production of artificial obstruction, bacteria passed through areas of necrosis in the intestinal wall. The larger thicker intestines of dogs were found to be more resistant, infection usually not passing. These observers note that the intestine of man probably holds a position intermediate between that of the rabbit and that of the dog in its resistance to the passage of infection. Kader found that pinhole perforations in the centers of necrosed areas were common avenues of infection. Large perforations are well-recognized means of infection.

The evidence seems to be that infection does not usually pass in the absence of marked pathological changes in the intestinal wall. Since such alterations almost constantly occur in that large class of complete acute obstructions in which venous stasis results, infection, either of the peritoneal cavity, or of the general circulation may be assumed as a final event. The factors which influence the rate of progress of the infection, whether it shall occur early or late, and which determine the localization of the infection, are important. It is recognized that acute obstruction occurring in a bowel filled with food runs a more rapid course. The bad results following the use of purgatives and the giving of food above the obstruction are better

recognized in theory than in practice. Experimental data on the importance of these factors are desirable.

VIII. EXPERIMENTAL WORK.

An attempt was made experimentally to determine the role of feeding by mouth and the giving of purgatives in determining the incidence of infection. Rabbits were selected for experiment. They ingest food even when sick and rarely relieve themselves by vomiting. They are unfortunately not readily acted upon by many of the vegetable purgatives. The thinness of their intestinal walls favors the passage of infection.

Acute complete obstruction was produced in rabbits by opening the abdominal cavity under aseptic precautions, and passing silk ligatures about the intestine in such a way as not to interfere with the blood supply except in the part immediately under the ligature. The cavity was then closed and the animal subjected to varying conditions of feeding and purgation.

RABBIT NO. 1.

Male rabbit in good condition, weighing 1810 grams. The animal was starved two days, then fed liberally. After feeding, the abdomen was opened under ether anesthesia with aseptic precautions and a complete obstruction produced by placing a braided silk ligature, rather tightly applied, around the lower end of the ileum, a few cm. above the valve. The abdomen was then closed with interrupted sutures in layers and a collodion dressing applied. Food was supplied, but not much was taken. Eight hours after the operation, a dose of one-tenth of a minim of croton oil and one-fortieth of a grain of elaterin was given. On the morning of the second day a definite muscle spasm was observed. The dose of croton oil and elaterin was repeated during the second day. The abdomen rapidly became distended, intestinal movements of increased violence could be *seen* and felt through the abdominal wall, movements of fluid could be heard; the animal had fever, a purulent conjunctivitis developed. Death occurred on the morning of the third day. The abdominal wound was found to be clean, healing, on the peritoneal surface smooth. Loss in weight of about 100 grams. The stomach was full of food, the small intestine much distended with gas and fluid. Peritoneal surfaces injected, mucosa pale. The intestinal surfaces about the ligature were adherent with easily broken adhesions, were granular, dull, and covered with a thin purulent exudate. This extended from the small necrotic area under the ligature causing the obstruction. The abdominal cavity contained a little turbid fluid. Stained smears of the

fluid showed the presence of small Gram-staining cocci in pairs, and of non-Gram-staining short bacilli, single and in pairs. Streptococcus pyogenes and bacillus coli were secured in culture. The organs were negative.

RABBIT NO. 2. CONTROL.

Male, weighs 1810 grams, starved two days. An obstruction was then produced as in the previous experiment. Food was not given, purges withheld. The animal remained in good condition, showing no change except a slight tenderness about the wound, and was killed on the third day as a control to animal No. 1. The eyes were clear, the abdominal wound healing, clean. The peritoneal cavity contained no excess of fluid, surfaces everywhere smooth except just around the ligature where there was a slight fibrinous deposit. Smears and cultures negative.

RABBIT NO 3.

A small male rabbit, weighing 780 grams, was starved three days, then fed liberally. An obstruction was then produced just above the ileo-cecal valve as described above. Food was supplied until death, but no purgatives were given. The rabbit remained quiet, eyes clear, no special symptoms were noted. The animal died on the fifth day. There was a loss in weight of about 75 grams. The wound was clean, healing. The peritoneal surface was healing. The peritoneal cavity contained a little turbid fluid and there was a little granular exudate over the ligature. Bacillus coli was secured in cultures. The organs were negative.

RABBIT NO. 4.

Small male, weighs 850 grams, starved three days, then fed liberally. Obstruction formed by tying the colon 15 cm. below the valve. Food not given after production of obstruction; on the second and third day each was given one-half minim of croton oil in ten minims of olive oil. There was no marked reaction; the animal was restless, there was no distension. He died on the morning of the fourth day. Loss in weight about 100 grams. External wound clean. Peritoneal cavity contained a quantity of turbid fluid, extending up, on the left side, to the diaphragm. The intestinal surfaces about the ligature were adherent, and covered with opaque whitish exudate. A thin layer of this opaque exudate covered the inner surface of the abdominal wound. The colon above the ligature was distended, its walls necrotic, but intact. The lower half of the small intestine was small and almost

empty ,the upper half and stomach dilated with food and gas, mucosa pale. The upper half of the right lung was found to contain a large number of small abscess cavities. The organs were otherwise negative. Bacillus coli and micrococcus aureus were secured in culture from the peritoneal cavity, micrococcus aureus from the lung abscess.

RABBIT NO. 5.

White, male, weight 700 grams. The animal was starved three days, then fed liberally with food containing starch and sugar (grain and beets). Twelve hours later a laparotomy was performed and the small intestine tied off in the lower part. Twenty-four hours later a dose of five grams of magnesium sulphate was given in solution by mouth. Enormous distension occurred; intestinal movements could be seen and felt through the abdominal wall. The animal died on the second day. At autopsy, the abdomen was greatly distended. The external wound was clean and healing. The small intestine was found to have been tied off and occluded ten cm. above the valve. The stomach and the intestine above the occlusion were greatly distended with fluid and gas, the intestine below collapsed. The general peritoneal surfaces were smooth, moist, and shining, there was slight excess of fluid. Slight adhesions were found about the tie, where the surfaces were dull and covered with a finely granular, whitish deposit. There were no demonstrable lesions of continuity of the gut. The liver contained an irregular white soft spot, 4 mm. in diameter. The other organs were clear. Cultures from the peritoneal surface around the obstruction yielded bacillus coli and micrococcus aureus, from the heart's blood and the liver abscess, M. aureus.

RABBIT NO. 6.

White male rabbit, weight 560 grams. The experiment was similar in detail to the preceding one. Food containing starch and sugar was given after starvation three days. Magnesium sulphate in efficient doses was given to stimulate intestinal movements after the production of an artificial obstruction. The animal died in thirty-six hours. At autopsy, the abdominal cavity was clean and healing. The obstruction was 6 cm. above the valve. The intestinal wall for a distance of 2 cm. above the obstruction was necrotic and full of small perforations. The vessel supplying the area was filled with a thrombus, but was not included in the tie. A general peritonitis had followed. Bacillus coli and streptococcus pyogenes were secured in culture from the fluid in the peritoneal cavity. The spleen was swollen, the organs otherwise normal except for cloudy swelling of the parenchyma.

RABBIT NO. 7.

Grey male rabbit, weight 850 grams. After deprivation of food for one day, the animal was fed with food containing sugar and starch. An artificial intestinal obstruction was then produced as in the former experiments. Cathartics were not given. There was moderate distension. The peritoneal cavity contained a small quantity of turbid fluid and the surfaces about the tie were dull, granular, and in places covered with a purulent exudate. Bacillus coli was secured in culture from the turbid fluid in the peritoneal cavity.

RABBIT NO. 8.

Grey rabbit, male, weight 1,100 grams. The animal was starved one day, then fed with food containing sugar and starch. Twelve hours later an artificial intestinal obstruction was produced. No cathartics were given. Death occurred two days after the operation. The abdomen was much distended. The external wound was clean, healing, internal surfaces clear, a little congested. The intestine was obstructed 10 cm. above the valve, the coils above the obstruction enormously distended with gas and fluid. The peritoneal surfaces were in general smooth, a little dull and granular about the tie. The spleen was swollen, the organs otherwise negative. Cultures from the fluid in the peritoneal cavity were negative. Cultures from the dull area about the tie yielded bacillus coli.

RABBIT NO. 9. CONTROL.

Black rabbit, male, weighing 900 grams. The animal was starved three days and an artificial obstruction produced. Distension did not occur. On the third day the rabbit was killed. The peritoneal surfaces were smooth except over the operative wound. Intestines almost empty, collapsed below the tie, slightly dilated above. Cultures from the peritoneal cavity and the heart's blood were negative.

RABBIT NO. 10. CONTROL.

Grey rabbit, male, weighing 1,200 grams. After starvation three days an artificial obstruction was produced. Six days later the animal was killed by a blow on the head. The peritoneal cavity was clear. The obstruction was found 10 cm. from the valve. The intestines were empty and collapsed below, very slightly distended above the obstruction. The intestine just above the obstruction was contracted and firm, the peritoneal surfaces normal except for adhesions about the tie. Cultures were negative.

The liver contained some irregular, whitish nodules in which coccidium oviforme was found. The organs were otherwise normal.

IX. CONCLUSIONS.

The above experiments are too few in number to warrant final conclusions. In the fourth experiment, infection from outside sources could not be entirely excluded. The character of the infection is that of a fecal source. Infection in each case was accompanied by pathological change in the intestinal wall at the point of obstruction, the passage of infection through the intestinal wall being apparently hastened by the ingestion of food and by the use of purges. Intestinal movements produced by the presence of large amounts of food and stimulated by the action of purgative agents likewise interfere with the normal protective mechanism, *i. e.*, the formation of adhesions, and thus favor the spread of infection in the cavity. The experiments of Borzéky and v. Generisch show that these factors are less efficient in animals with thick and strong intestinal walls, as in the dog. Caution should therefore be used in applying these conclusions to the study of intestinal obstruction in man.

The following tentative conclusions seem to be justified:

1. Acute intestinal obstruction is a condition in which inflammatory changes in the intestinal wall either exist from the beginning, or tend to appear very early, especially when the obstruction is of such a nature that the vascular supply is disturbed.

2. Abnormal intestinal movements are factors in the production of intestinal obstruction, second only in importance to anatomico-pathological changes.

3. Abnormal intestinal movements above an obstruction usually tend to increase the obstruction and to render a partial obstruction complete. They likewise hasten infection.

4. Ingested food, intestinal juices, and fluid resulting from the use of purgatives are most efficient stimuli of abnormal intestinal movements above an obstruction, and their use in such conditions hastens infection.

In conclusion, I desire to acknowledge my indebtedness to the papers of Mall, Nothnagel, Bayliss and Starling, and of Moore; also especially to the recent monograph of Wilms. This contains an almost complete list of references, rendering any further references here unnecessary.

EXUDATIONS.

BY W. C. ABBOTT, M. D.,

CHICAGO, ILL.

The practice of medicine is greatly simplified when we can establish any general principle that runs through many different maladies and cases, permitting a treatment applicable to all, and thus lessening the enormous burden laid upon the memory. In this respect we owe an incalculable debt to the doctrine of germ infection, another to that of autotoxemia, and the combination of these two affords us a guide in a large proportion of our clinical work. The study of vasomotor conditions and the application of the appropriate remedies thereto, covers another large field.

There is another principle that may be treated, whose extent of application is almost unlimited—the presence of exudative matter, the debris resulting from morbid processes that remains to encumber the system and interfere with the natural functions. It was due to his recognition of this principle that Burggraeve manifested such a preference for the arsenates in his therapeutics. The primary action of arsenic is the induction of fatty degeneration. This is manifested upon new and slightly organized disease products more readily than upon the normal tissues of the body; hence if administered in doses large enough to effect the feeble products of disease, themselves prone to spontaneous destruction, the doses yet being too small to affect the hardier normal tissues, we obtain its benefits without injury.

Even during the course of acute maladies we may avail ourselves of this principle and seek to limit exudations and hasten their absorption. When the acute stage has passed we avail ourselves of other and more decided means of stimulating the lymphatic apparatus, the needs of the acuter stages having passed and absorption coming to the front as the principal indication.

The two principal agencies employed by us to cause absorption-stimulation are mercury and iodine. Each of us has his hobbies and individual preferences, and the writer does not claim exemption; but after having administered every official form of each he has settled down to the biniodide of mercury as his preference. It is safe, as the iodine carries the mercury rapidly through and out of the body, leaving no residuum for future elimination. It is at least as effective as any other. Of the iodines the iodide of arsenic is exceedingly active, and induces symptoms of iodism readily; both elements acting as irritants to the conjunctiva it affords a delicate indication of the attaining of physiologic action, and the beginning of toxic manifesta-

tions that warn us to diminish the dose so as to keep below the point of destroying normal tissue cells. Iodoform also manifests the constitutional effects of iodine, and in addition, by its local sensation-sedative action, soothes the stomach and allays any irritation there that might interfere with the continued administration of the other remedies.

The vegetable absorbents are less clearly marked. Much uncertainty prevails as to their true powers, due to the uncertainty and and variability of their composition and action. They were largely administered in hot decoction, and many jumped at the conclusion that their benefits were due solely to the free use of water and consequent flushing of the emunctories. No special proof was offered of the truth of this assumption, and it failed to show why certain plants secured repute as absorbents rather than others. As with the caffeine-bearing plants, used all over the world as hot beverages to the exclusion of all non-caffeine plants, there is generally a true reason behind popular customs and preferences.

Since the introduction of the active principles the task has been rendered simpler, and it is perfectly easy to differentiate between the effects of the water and that of the medical ingredient. The writer has administered phytolacca in dry granules quite extensively, enough to satisfy him of its great action on the lymphatics. In treating many cases it has been noted that there may be little or no perceptible effect from phytolacca for weeks or even months, and then the patient will commence to throw off fat with such rapidity as to alarm him. This, however, ceases when the drug has been discontinued, and any undesirable emaciation is readily obviated by the use of fat-forming nutrients.

Whenever the exudation to be removed is bulky and fluid, a mechanical principle may be usefully invoked. By draining the body of fluids and closely limiting the quantity of liquids taken into the body we may so lessen the quantity as to promote absorption. The blood requires a certain proportion of water which it maintains by robbing the other tissues—if we may be permitted to speak of the blood as a tissue. Naturally, the abnormal tissues and fluid exudations part with their water more readily than the tissues that have themselves a need for it. Hence, if we abstain from water until the blood is hungry for it, we will see fluid effusions subsiding. This may be hastened by draining the water by cathartics, diuretics and diaphoretics, to whatever extent the condition of the patient permits.

Nutritional and roborant therapeutics do not interfere with the

stimulation of absorption, and in fact are enhanced by keeping the alimentary canal clear and clean, and holding the eliminants open for the quick removal of refuse. Digestion, absorption and assimilation are thereby favored, so that the evacuant medication, classified as depressing if not destructive, is truly reconstructive and strengthening in its effects.

OBSTETRICAL RESPONSIBILITY DURING GESTATION.

BY W. F. McCABE, M. D.,

BELOIT, WIS.

As a rule the public appreciate the saving of a sick person's life by the skilled physician, but they fail to see the priceless gifts to the human race made by preventive medicine and sanitary science. They fail to realize the burden of care placed on the physician's shoulders. They do not understand that a mistake in diagnosis, or an error in judgment, or a faulty technique, may mean life or death, health or disease, strength or disability, joy or sorrow.

It is our duty, then, as practitioners of medicine, to make plain to the laity their responsibility in this most charitable, most important branch of our work. We owe to every patient who comes to engage us for confinement, a careful examination and a clear understanding as to her obligations to herself, to her child, and to her physician. We should impress upon her the necessity of consulting us when in doubt instead of accepting advice from her women friends. Women come to us with burdens they would not take to their husbands, their pastors, their lawyers, or their best friends. It is here the physician has an opportunity to show himself a man. It rests with him to accomplish a great deal of good or to do an immense amount of harm. A patient comes to him and tells him she failed to menstruate the last period. She may be just married, or she is not prepared for motherhood, giving various reasons, financial and other, all of which may seem plausible to her. It is here the physician must use his best judgment and make plain to his patient the wisest and best course to pursue. Unless the life of the expectant mother is in danger, pregnancy ought to be allowed to continue. If she is leading a well ordered life very little should be done in changing her mode of living. Care should be taken that she receive a proper amount of diversion and amusement; out door exercise should be encouraged. As a rule riding and walking are probably the best. The diet should be plain, wholesome, and nourishing. Highly seasoned, rich, indigestible foods ought to be avoided. Clothing should be arranged so as to exert as little pressure as possible on the waist. The majority of men doing the obstetrical work of to-day give little

*Read before the 60th Annual Meeting of the State Medical Society of Wisconsin, Milwaukee, June 28, 1906.

time or attention to the welfare of the expected mother. Some seldom make a urinary examination, or give any advice as to the mode of living, the condition of the bowels, or the care of the nipples. If they do make one urinary examination and find no trouble they fail to follow it up unless compelled to do so by urgent symptoms. The urine should be examined once a month for the first seven months, twice a month—or even better once a week, for the last two months. The patient should clearly understand that any one of the following symptoms should be reported at once: scanty flow of urine, persistent headache, disturbance of vision, swelling of the feet, loss of blood, persistent constipation. During these nine months the pregnant woman should avoid, as much as possible, exposing herself to any of the infectious or contagious diseases. Any disease which of itself produces a severe strain on the individual is much more serious when it occurs during pregnancy; in fact premature delivery almost always takes place, and the course of the disease is rendered much more unfavorable. Six weeks before labor is expected a careful examination should be made; it may be possible at this time to convert a breech, transverse or face presentation into a vertex.

Our best authorities tell us that to neglect pelvimetry is comparable to attempt to treat pulmonary diseases without auscultation or percussion. My own limited experience does not warrant so strong a statement. However, I do believe in pelvimetry and I also believe that too many of us fail to make use of this valuable instrument. The greater number of obstetrical cases, fortunately for us, go through these nine months without any untoward symptoms. We do know, however, that the excretory organs at this time are much more liable to derangements, as they are called upon to eliminate for the fetus as well as for the mother. On this account women who are in good health at other times, suffer during pregnancy with the accumulation of excrementitious substances. In fact it has been clearly demonstrated that all pregnant women suffer to some extent from auto-intoxication. We know that hyperemesis, eclampsia and similar pathological conditions complicating this physiological process, are produced during the pregnant state by faulty metabolism.

Experimental efforts have been made to isolate these individual toxins, but as yet they have not been uniform or complete. It remains for a poison to be found to which may be attributed the symptoms as well as the pathological changes and impaired metabolic processes associated with these disturbances of pregnancy. We are all mortals and liable to mistakes, but I contend that we have no right to assume control of an obstetrical case unless we are willing to give to the patient every attention the case may demand. Some of you will say you cannot afford to make all these examinations, besides one to three after calls and only get the regulation fee of ten dollars. Now, gentlemen, I charge for all my examinations, and for all visits after confinement. The patients understand it and there is seldom any objection. I also make an extra charge if the case demands more time than ordinary. We are giving our best efforts and we ought to receive a reasonable compensation.

Discussion.

DR. JULIUS NOER of Stoughton: The great objection to treatment of the confinement case previous to and after delivery, as suggested by Dr. McCabe, is the fact that it is a physiological process and 90 per cent. of all cases will get along without the aid of the physician or anybody else, that is so far as immediate results are concerned. Herein lies the great difficulty in getting people to understand the necessity of proper and scientific handling of these cases. There is no question but that all these cases should be handled as the doctor has suggested; that every woman who is pregnant should be constantly watched from the time she becomes pregnant until she is successfully and well delivered.

This would destroy a very large part of the work of the gynecologist, but it would undoubtedly relieve womanhood of a large share of all her ills. Just how to get at this, however, is a difficult proposition. You all know how it went with Semmelweiss when he introduced the practice of asepsis into midwifery in 1847. He was misunderstood and persecuted by his professional brethren to such an extent that he died in an insane asylum. It is very difficult to make people see these things as they are, and it seems surprising to me that we have as little trouble as we really have. I rarely see a case of sepsis after confinement. I used to see cases, but of late years it has certainly, in my experience, been getting a great deal better—due perhaps to greater cleanliness exercised during and before the period of confinement.

The attention to the metabolism of the patient is certainly important; and recent scientific researches show that this is absolutely an essential thing. Dr. McCabe has himself suggested the difficulties that are in the way. Practitioners have not the courage to tell their patients that they must make a charge for that sort of work. We cannot do it for the ordinary fee of $10, and therein lies one of the obstacles against reform in this direction. I think the matter should be attended to and we would then have better work along those lines.

The other matter which the doctor did not suggest is this: I think that all confinement cases should be placed in a lying-in hospital. We shall get to that after awhile, and every district, every city of any consequence, all over the United States will, I think, ultimately have a lying-in hospital where women will be properly, aseptically and scientifically cared for during and after labor. Every municipality should be required by law to maintain a properly equipped lying-in hospital.

DR. H. SYLVESTER, of Milwaukee: Dr. McCabe and Dr. Noer have discussed this question so thoroughly that it is almost repetition on my part to say more, though there are one or two points that I should like to mention, particularly the points brought up by Dr. Noer as to the probability of future hospitals or places for confining women being established. That may be a condition of the future, but I think it will be far in the distance. Nearly every woman prefers to be confined in her own home, even if it is a mere hovel, and it is hard to get them to go to a hospital to be confined even if the advantages are much superior to their own home.

Then another thing, along the line of the surroundings of the patient that I think Dr. McCabe partially touched upon, in speaking of the exercises of the patient, is this: during pregnancy there are few women who are not more or less changed in their mental condition. Few women are their natural selves at that time. So that it is well, I think, to place a woman in such surroundings that it will relieve her of all disposition to melancholia—or any change that may be noted in her mental disposition. It would be well to get her outdoors as much as possible, particularly away from town—out in the open air—to get her as near nature as possible. If she is troubled by weight in locomotion, it would be well to supply her with an abdominal binder, have her walk as much as convenient. If her veins are varicosed she should be supplied with proper support for them. In this way most women are able to walk a number of miles a day.

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EDITORIAL COMMENT.

THE STATE MEDICAL SOCIETY MEETING.

Steps are being taken by the Program Committee to make the next annual meeting, to be held at Superior, an attractive and successful one.

Dr. Crile of Cleveland has been secured to deliver the Address in Surgery, and Dr. Dock of Ann Arbor, the Address in Medicine. This selection is exceedingly promising. Inasmuch as the Minnesota State Society has but a two day session at Duluth, it has been found impossible to arrange for a joint scientific session. There will, however, be a joint evening social gathering.

The centrally located Blaine High School building has been secured for the meeting.

A BRIEF ON MEDICAL LEGISLATION.

In this issue of the JOURNAL is published a brief upon the medical bills before the Legislature, prepared by Attorney A. C. Umbreit, for distribution to the legislators and others whose influence is being sought. Two thousand copies of this brief were printed and distributed.

We recommend the perusal of this interesting and instructive brief. It is a splendid resumé of the various medical laws that have been enacted in this state, and a very clear exposition of the purport of the measures now before the Legislature.

Alive to the interests of the profession, and appreciating that the State Society's funds were limited, the directors of the WISCONSIN MEDICAL JOURNAL voted that the entire expense of this publication be defrayed by the JOURNAL. This was done accordingly.

Copies of the brief may be obtained upon application to Dr. A. W. Gray, Goldsmith Bldg., Milwaukee, enclosing one cent for postage.

MEDICAL BILLS PASS THE SENATE.

Bills 314S, 315S, and 449S in the form in which they appeared in the March issue of the JOURNAL, have been passed by the Senate. The Assembly will have the bills under consideration when this issue of the JOURNAL reaches our readers.

This is the time for final concerted action by the members of the State Medical Society, and we urge you therefore to at once write your assemblyman and secure his support for these measures. It is only by united action on the part of the profession that the desired legislation can be effected, for opposition from the usual sources is never lacking and always active.

EXIT THE DR. BAILEY CO.—NEXT?

There was a time when certain medical trades flourished; their promoters enjoyed lives of ease, undisturbed by questions of right or wrong, little annoyed by difficulties of diagnosis (not however because they had no patients), and not importuned by county secretaries to attend meetings, write papers and pay dues. Those were happy care-free days, when one could advertise one's wares to one's heart's content, likewise to the limit of one's purse's content, knowing well that a rich harvest could be anticipated. Those were the days of the great Fielding, he of huge hulk and a fall not good to look upon, self-confessed possessor of a brain that worked while others slept. Even the Reinhardt twins when in the zenith of their glory never ventured to scale the same dizzy advertising heights as did that illustrious studious Fielding. But alas! He fell prey to misplaced con-

fidence in an unresponsive public, and departed hence—unwept, unsung.

Others followed, but not all so unfortunate as Fielding whose entire energies were spent in supporting newspapers. Our memory of the bearded patriarch, Spinney & Co., who, like the poor, we seem always to have had with us, has not yet grown cold, nor have we forgotten the ubiquitous yet elusive K. & K.

The good services done the state by the Master Specialist, though done unwittingly, must not be ignored. He furnished an object lesson enabling the passage of the law which made of the Master Specialist and his faithful twin sponsors, hunted creatures.

This law and the excellent work done by Mr. A. C. Umbreit, the State Board's Attorney, in enforcing it, has devastated a field, formerly so fruitful, of its choicest harvest. It has decreed that it is offensive to morals to publish advertisements relating to sexual and venereal diseases. As most quacks derive their incomes largely from the poor fellows who are made to believe they are suffering from this class of ailments, it is evident that tame advertisements cannot yield a satisfactory profit.

The serving of two writs of attachment in behalf of the Evening Wisconsin and Germania-Herold, upon the Dr. Bailey Company, for advertising accounts unpaid, is significant. It means that the fakir cannot do a thriving business if he is restricted in the wording of his advertisements. This alone, without the assistance of the measure now before the legislature that makes the newspaper responsible for the character of its ads, will have a restraining tendency that will eliminate much—if not all—of the grossness of the fakir's announcements.

THE QUESTION OF GARBAGE DISPOSAL.

There is no more important question affecting the public health of any community than the proper collection and disposal of garbage. Unfortunately, in America this subject has been relegated to the rear, and others of less importance have received prior consideration. This is particularly true of the disposal feature, the last few years having seen great improvement in the collection of garbage in the larger cities.

Milwaukee again has taken up the garbage disposal question, and there is no good reason why at this juncture something should not be done to solve the problem permanently. For many years the garbage question has been agitated in Milwaukee, and still it seems to crop out again and again. The only conclusion must be that it has not been solved right.

The first thing to be taken into consideration is not cost, but the health of the community. In other words, whatever system is established, or whatever method employed to do away with the ever increasing mass of the city garbage, it must be strictly sanitary. The purpose in collecting garbage is not merely to accommodate householders, but primarily it is to prevent disease epidemics which might result from uncollected accumulations. To collect the garbage promptly and then dispose of it in some unsanitary or obnoxious manner would be short-sightedness indeed, and would defeat the very ends being striven for by the municipality.

There are two principal methods of disposal—reduction and incineration. The first seeks to take from the garbage the valuable marketable products it contains. Americans have clung to the hope of making a success in this direction because it has always been hard for the American to pass up an opportunity of making money. The testimony of expert engineers and men best qualified to judge of proper sanitary conditions has been almost unanimous in condemning reduction. The European cities have abandoned the plan altogether. The garbage cannot be sorted or handled, or even reduced, without stench and danger to the community. In Germany and in England, the incineration method has supplanted the reduction entirely, and in this country the tendency in the last few years has been in the same direction.

In England the most advanced step has been taken by burning all manner of refuse in the common incinerator. Many of the larger cities have the one-barrel collection. Everything in the line of refuse is thrown into the one receptacle.

Engineers have found that this plan, besides being the most sanitary, also is the most economical, because the mixing of the refuse insures so large an amount of combustible matter that coal is unnecessary as fuel, and the great heat generated in the burning furnishes sufficient power to run all manner of public works. Street cars are being run in England from the power generated by the burning of this mixed refuse, and even on this continent, in the little city of Westmount, Canada, the heat from the burning of the garbage and refuse runs the electric lighting plant.

Let American cities, and Milwaukee in particular, adopt some such plan as this if money is to be taken into consideration at all in caring for the public health. At all events, make sure that the best method is adopted.

The time to solve the problem right is at hand. Let the best and most expert advice that can be purchased be brought to Milwau-

kee to assist in settling the question. The physicians especially should interest themselves and use their influence toward supporting those officials who are trying to set all other considerations aside in the one object of giving the city the most up-to-date and sanitary garbage disposal system that modern science and mechanics can produce.

THE AUTOMOBILE AND THE DOCTOR.

There is no need to tell physicians much about the usefulness of automobiles, nor to demonstrate in how many ways the machine eclipses the horse in general convenience and economy of time—though possibly not in economy of purse. The latter consideration is a problem that each individual must work out for himself. At the present time the weighty question is rather one that concerns the judicious selection of the machine that is going to best satisfy the various requirements—and these include such points as strength, durability, speed, appearance, seating capacity, economy, price, etc.

In order to give physicians a good opportunity to examine into the various features of automobiles, the Committee on Exhibits of the Illinois State Medical Society has decided upon a departure from the usual character of medical exhibits at state medical meetings. Dr. Chas. S. Winn, chairman of the committee, writes us as follows:

"The committee have arranged for the exhibition and demonstration of automobiles of the runabout type specially fitted and adapted to the physicians' use, ranging in horse power from 10 to 30, and in cylinder from one to four. The physician is rapidly adopting the motor car as his means of conveyance. Those who purchased cars early in their development are still automobile enthusiasts. Although the cars have not proved satisfactory in every way, it is seldom you hear of a physician who has gone back to the use of the horse. The physician, as a rule, is not a good mechanic and is apt to have a little more than his share of trouble, but he is an apt student and soon learns the mechanism of his car and becomes an automobile enthusiast. Many are disposing of their old cars and purchasing new ones, and in making these second selections, they are not so easily convinced of the merits of the car, but they must be shown. Cars possessing sufficient horse power and sufficient weight are demanded. Durability is an important feature. Ease and comfort of riding are of great importance, and thus you see all these qualifications are not found in one car. The manufacturers demonstrating cars at this exhibition will have in mind the needs of the physician, and will come prepared to set forth the merits of their car and show why it is specially adapted to the physicians' use. The questions of number of cylinders is not

fully settled. An automobile run is being arranged for from Chicago to Rockford, and we hope to see in this run from 20 to 30 cars. Thus, physicians desiring to purchase automobiles, will have an exceptional opportunity to make selections of car at this time."

It is probable that the information gleaned by the Illinois physicians will be given wide publicity in the Western states; thus the motoring doctors of Wisconsin will receive much profit from the exhibit too.

We acknowledge a debt to the Illinois committee for its timely and helpful proposition, and are glad to flatter by imitation. We would suggest that a similar exhibit be arranged for the joint benefit of Wisconsin and Minnesota physicians at this year's meeting. If this is impossible, then let us arrange for a "runabout" show at the 1908 meeting which will undoubtedly be held in Milwaukee.

Automobile exhibits will, we believe, prove in the future to be featured among the leading attractions of large medical gatherings.

THE MIDWIFERY BILL.

Regulation by licensure is now conceded to be the most efficacious method of exercising supervision over any institution catering to the public welfare—especially that pertaining to its health. We regret to note the failure to enact the proposed barbers' bill, which aimed to place the shops under the control of the State Board of Health, by licensing them, thus centralizing responsibility and permitting the enforcement of sensible regulations whose intent was merely to safeguard the health of the barbers' patrons.

While there is nothing in the midwifery bill now before the Legislature that can be construed as infringing upon the privileges of this guild, the act proposed is so eminently sensible and manifestly proper that we can hardly believe that its passage will be seriously menaced. It is little enough to ask of the midwife that she prove her fitness by submitting to an examination as to her qualifications to practice this branch of medicine. It must be evident, too, that the Wisconsin Board of Medical Examiners will not be unduly enriched by the fees exacted for issuing the licenses. Inasmuch as there have been numerous convictions of midwives, especially in Milwaukee, for criminal abortions, the provision that the court may revoke licenses for such cause may prove a prophylactic against these practices. We should have liked to see the revocation of license linked with the penalty imposed upon conviction for a criminal offence. A single proven offence shows the individual's unworthiness to pose in so responsible a position as is that of the midwife.

The full text of this bill, to which we called our readers' attention in the February JOURNAL, is printed below. To the Milwaukee Health Department belongs the credit of having framed this excellent measure.

A BILL

To create section 1436—1 to 1436—6 inclusive, statutes of 1898, relating to the practice of medicine.

SECTION 1. There are added to the statutes of 1898, six new sections to read:

SECTION 1436—1. All persons desiring to practice as midwives in this state, shall apply to the Wisconsin Board of Medical Examiners at the time and place designated by said board or at any regular meeting thereof for a certificate of registration as a "midwife" and shall pass an elementary examination in the proper care of an obstetrical case during and after confinement, in the ordinary rules for cleanliness and asepsis to be employed in such cases and in the diagnosis of abnormal conditions that would require that further skilled assistance be summoned promptly.

SECTION 1436—2. The fee for such examination shall be fixed by the board but shall not exceed three dollars with two dollars additional for certificate if issued. Such fee or fees shall be paid by the applicant to the treasurer of the board and applied in the same manner and under the same restrictions as the fees that they receive under the provisions of chapter 426 of the laws of 1903.

SECTION 1436—3. A midwife is hereby defined to be a female who accepts the professional care of a pregnant woman during and after her confinement.

SECTION 1436—4. Every person hereafter practicing "midwifery" in this state shall be required to have the certificate herein provided for. And any person beginning or continuing such practice without having obtained such certificate, or any person who, not having the legal possession of a certificate such as is herein referred to, shall advertise or hold herself out to the public as a midwife, or accept a fee or gift of any kind for such service shall be punished by a fine of not less than twenty-five dollars for each offense, or by imprisonment in the county jail for a term not exceeding thirty days or by both such fine and imprisonment.

SECTION 1436—5. If any person thus registered by said board shall be convicted of any crime in the course of her professional conduct, the court in which such conviction is had, may in addition to any other punishment imposed pursuant to law, revoke such certificate.

SECTION 1436—6. It shall be the duty of the Board of Medical Examiners to investigate all complaints in regard to the violation, or disregard of, or non-compliance with the provisions of this act, and to bring all such cases to the notice of the proper prosecuting officers, and it shall be the duty of the district attorney of the proper county to prosecute all violations of this act.

SECTION 2. All acts or parts of acts in anywise conflicting with the provisions of this act are hereby repealed.

SECTION 3. This act shall take effect and be in force from and after its passage and publication.

AN UNFORTUNATE INCIDENT.

In the February issue of the JOURNAL we took an attitude of disapproval of Dr. Puls' connection with an article on intraspina lanesthesia, as published in a lay paper. Inasmuch as no satisfactory explanation was forthcoming at the time, the doctor's part in this publication met mith our severe criticism.

Dr. Puls' further statement, however, permits the inference that he was not guided by motive of self-advertisement, but rather that, in his enthusiasm over the results of intraspinal anesthesia as he saw them, he was indiscreet enough to take a newspaper representative into his confidence, little foreseeing the consequences disagreeable equally to himself and the profession.

We take the occasion to again refer to this unfortunate occurrence because we believe that all fair-minded fellow practitioners will feel, as we do, that Dr. Puls' own realization of the effect of his indiscretion is as great a censure as any that could be passed upon him.

It is manifestly dangerous—and this must always be borne in mind—to take an interviewer into one's confidence and talk freely upon any subject responsibility for whose gross exaggeration and embellishment one does not care to assume.

NEWS ITEMS AND PERSONALS.

Parke, Davis and Company announce the death of their president, Theodore D. Buhl, April 7, 1907.

St. Mary's Hospital, Milwaukee, will soon begin rebuilding its institution. Plans for a $500,000 building are under way.

The Milwaukee Hospital is planning a $50,000 addition—a Home for Incurables. This building will be the donation of Mr. and Mrs. Frederick Layton.

Donation to Children's Hospital. Mr. and Mrs. Frank Bacon have donated the support of a bed to the Children's Free Hospital, Milwaukee, which means an annual contribution of $250 to the institution.

Dr. R. P. Hanson, of Oshkosh, informs us of his resignation as secretary and member of the Wisconsin Medical Union. He is actuated in this for reasons of health, and a feeling that "the affairs of the Union are now under the control of the better element."

Dr. Broughton, of Rockford, in a popular address delivered to a Men's Club of Rockford, made the assertion that one out of four who take treatment for the alcoholic habit, returns to the use of liquor. He is of the opinion that alcohol at no time acts as a stimulant, and classes it among the habit drugs.

A Hospital in Portage. A number of physicians and prominent laymen are planning to build a hospital at Portage. Information is desired as to the cost of a 20 room structure, and the best methods to be pursued to obtain funds for building and maintenance. Communications may be sent to Dr. Wm. J. Thomson.

Life Insurance Fees. At the meeting of March 27th, the Washington County Medical Society unanimously adopted resolutions opposing the reduction of life insurance examination fees. The resolutions were identical with those adopted by the Columbia County Medical Society and are printed in full on another page of this issue of the JOURNAL.

Dr. Chas. M. Willis, of Berlin, died at his home on April 4th, at the age of 57 years, of nervous exhaustion and heart failure. He was graduated at Rush Medical College in 1877, practiced at Randolph four years, and then moved to Berlin where he remained in active work up to the time of his death. He was a member of the County and State Medical Societies, and was secretary of the United States Pension Board of Examining Physicians.

Dr. Albert W. Warner, aged 91, Waukesha's oldest physician as to years of practice, died on March 15, at the home of an adopted daughter at Chicago, with whom he had lived since the death of his wife about three years ago.

Dr. Warner was born at Andover, Winsor County, Vermont, February 14, 1816. He was graduated from the Vermont Medical College at Woodstock in 1842, and practiced in New York until 1845, when he went to Waukesha. Dr. Warner was county physician for a number of years.

The Pathological Society of Philadelphia, which is one of the oldest, if not the oldest society of its kind on this continent, will celebrate its semi-centennial in May, 1907. Instituted at a time when pathology scarcely had a foot-hold in this country, it has kept pace with the tremendous development of that science, and has had a share, not only in giving Philadelphia its eminence as a medical center, but also in fostering the scientific spirit in America.

The celebration, which may rightly be considered an event of national importance, will extend over two days, Friday, May 10th, and Saturday, May 11th. On the first day addresses will be delivered by Dr. Frederick G. Novy, of Ann Arbor, Michigan, on "The Role of Protozoa in Pathology;" by Dr. Simon Flexner, of the Rockefeller Institute, New York, on "The Newer Pathology;" and by Dr. A. E. Taylor, of the University of California, on "The Dynamic Point of View in Pathology."

In the afternoon, at four o'clock, a commemorative meeting will be held in the Pennsylvania Hospital, where the first meetings of the Society, in 1857, took place. At this meeting, Dr. William Osler, Regius Professor of Medicine, Oxford University, will deliver an address on "Pathology and Practice."

At a dinner in the evening, prominent men from all parts of the country will respond to toasts.

An exhibition meeting of interest to pathologists, clinicians, and surgeons, will be held on Saturday, May 11th.

The date of the celebration will enable those to be present who have been in attendance upon the Congress in Washington, and those who are coming east a little in advance of the meeting of the American Medical Association.

CORRESPONDENCE.

COUNTY SOCIETIES ATTENTION.

Hammond, Wis., March 25, 1907.

Editor WISCONSIN MEDICAL JOURNAL.

Dear Doctor:—May I have a space in your Journal in which to call the attention of members of county societies, and especially the secretaries, to Sec. 3, Chapter 4, of the By-Laws? I have been trying for the past three years to work the societies in the Tenth District up to the point of a regular program for each year, and for the life of me I cannot get it into their heads that it is *necessary,* to say nothing of being obligatory. Of course some of them have arranged programs and good ones and are doing good work, but the majority meet without any arrangements and have no conception of the work before them. The program committee of each society is the president, vice-president and secretary, and it is *their duty to arrange a complete program for each meeting for the entire year, and mail it to each member before the first of January of each year.*

If the secretaries will study the section above cited they will see that there is no question about the matter. *It is obligatory, mandatory, and is the law of every county society.* I wish the councilors would take this matter up with the secretaries of their societies and see if we cannot arrange for better work all along the line during the next year.

Again, how many county presidents have failed to appoint a Committee on Public Health and Legislation as the constitution requires?

There is another matter to which I wish to call attention, and I ask the secretary of each society to look the matter up at his earliest opportunity. I refer now to the card index system furnished all county societies. On the back of members' cards is a space arranged to keep record of dues paid by them. How many secretaries are keeping this record? How many are keeping or trying to keep track of the new men coming into their territory?

Lastly, allow me to call the attention of secretaries to Sec. 5, Chapter 1, of the By-Laws, and to the necessity of having the card signed by the president as well as by the secretary.

If the councilors would study the Constitution and By-Laws, and when visiting the societies in their districts look into the way these things are done by the different societies and advise them as to the proper way to transact their society business, keep their books, and urge them to report each meeting to their councilor and send a report to the JOURNAL for publication, things would move better.

Sincerely yours,

E. L. BOOTHBY,

Chairman of Council.

PENDING MEDICAL LEGISLATION.

BRIEF ON CERTAIN BILLS PENDING BEFORE THE LEGISLATURE OF 1907.

Special Bills considered: Numbers 314S, 315S, 449S and 416S.

In order that the members of the Wisconsin Legislature for 1907 may, at their leisure, consider and digest proposed medical legislation, it has been thought advisable to prepare a brief on such legislation and distribute same among the legislators as well as file it with the Legislative Reference Library. The facts herein presented have been carefully collected and selected, pertinent decisions of courts of last resort are cited, and the data furnished are reliable and gathered from court records. Pending legislation is discussed from standpoints of general principles and of special conditions demanding further legislative enactments.

The one object and purpose of all medical legislation—the protection of the public—is the keynote of this argument.

Special interests, personal or professional considerations, are entirely ignored and discountenanced. Fairness and impartiality in presenting our case has been our purpose and aim.

a. PURPOSE OF ALL MEDICAL LEGISLATION.

The purpose of all medical legislation is to protect the public, not the doctors. The legitimate doctor needs no protection—nor does he ask it. In fact, no restrictive legislation as to qualification for the practice of medicine redounds to the financial and professional advantage of the well-equipped and able physician, if ethical considerations and the interests of the public are disregarded. The malpractice of the quack and charlatan will sooner or later drive the unfortunate victim, if he survives, to the reputable physician for treatment, and his aggravated ailment, by reason of his experience with the quack and charlatan, will increase the fee for efficient, reputable medical service. Let it be stated right here and once for all—and the statement is made as the result of the experience and observation of the writer as attorney for The Wisconsin Board of Medical Examiners for the past ten years—that the twenty-five hundred or more reputable, painstaking, self-sacrificing and efficiently trained medical practitioners of Wisconsin have not, and never had, any bigoted purpose in view when they advocate and advocated, stringent medical legislation with reference to the required qualifications for the practice of medicine and honorable and professional conduct after admission to such practice.

Our own Supreme Court has used language as follows:

"The peril of the community at large from the presence of unfit, and incompetent practitioners (of medicine) fully justifies restriction by the legislature, to exclude the latter." State ex rel. Kellogg vs. Currens et al., 111 Wis., 431, 437.

Again:

"The manifest purpose of the act (Chapter 422, laws of 1905) is to prevent any incompetent or unfit person from practicing medicine or surgery or osteopathy, and thus to protect the public from the injuries which might otherwise be incurred." State vs. Schaeffer, 109 Wis. N. W. R, 522. (Decided November 7, 1906.)

The purpose of the medical bills pending before this legislature is identical with the purpose of the acts heretofore passed—the protection of the public against the incompetent, unqualified, dishonorable and disreputable practitioners. The public health and human life are too sacred to allow the quack, the charlatan or the confidence man to exploit, for the purpose of filling his coffers with tribute from the helpless and unfortunate.

b. HISTORY OF MEDICAL LEGISLATION IN WISCONSIN.

The statement has been frequently made that medical legislation in Wisconsin providing for certain qualifications in persons who assume to practice medicine, is of very recent date and began with the act of 1897. It is also suggested in certain quarters that the medical profession and the medical societies as well as the State Board of Medical Examiners, are constant applicants at the door of every legislature asking for more stringent legislation. Both this statement and this suggestion are without any foundation in fact, as will appear from a very brief history of medical legislation in Wisconsin. The fact is, that the laws of Wisconsin for a great many years have required certain qualifications for persons assuming to practice medicine, and hence the impression that such legislation is of very recent date is erroneous and unfounded. All that is asked of this legislature, and all that was asked of former legislatures, is that laws be enacted, keeping pace with the situation and conditions that demand such laws.

In giving the history of medical legislation generally, that is, statutory requirements as to what constitutes a reputable physician or surgeon, I shall not go farther back than the revised statutes of 1878. In the revision of this year, we find that section 1436 provided:

"No person practicing physic or surgery, or both, shall have the right to collect in any action in any court, fees or compensation for the performance of any medical or surgical service, or to testify in a professional capacity as a physician or surgeon in any case, unless he shall have received a diploma from some incorporated medical society or college, or shall be a member of the state or some county medical society legally organized in this state."

The title to this section is somewhat instructive and striking because such title was as follows: "Quacks not to recover fees or testify as experts."

Hence, for thirty-eight years at least, the statute of Wisconsin has recognized a division between a reputable physician and a quack. It is true that the statutes of that year did not provide a punishment for practicing medicine without having certain legal qualifications, but the legislature thought it sufficient punishment for persons who

had not the legal necessary qualifications and nevertheless attempted to practice medicine, to provide that they could not collect their fees by an action in any court nor testify as experts.

We then find that even in 1878 it was necessary in order to be a reputable physician, to have received a diploma from an incorporated medical college or society which granted a bona fide diploma or else to be a member of the State or some county medical society legally organized in this state. If we then turn to the statutory provisions of that year, with reference to what was necessary, as far as qualifications were concerned to entitle a person to become a member of the county society, we find that such membership was predicated upon having a diploma from a bona fide medical college or upon having passed an examination conducted by the censors of a regularly organized society, upon the passage of which examination a diploma was issued and membership in such society thus secured. But even before a person could take this examination, it was necessary that he possessed a good English education and had studied medicine at least three years with some respectable practitioner, and that he be possessed of a good moral character. (Sec. 1425 R. S. 1878.)

Coming now to the year 1881, we find that the legislature became satisfied that the punishment theretofore imposed upon quacks by denying them the right to sue for their fees and to testify as experts, was not sufficient, and hence they made the practicing of medicine without having the necessary qualifications for reputability a criminal offense and passed an act bearing this title:

"An act to prevent quacks from deceiving the people by assuming a professional title."

The first section of this act provided as follows:

"No person practicing physic or surgery, or both, who is prohibited by section one thousand four hundred and thirty-six of the revised statutes of Wisconsin, 1878, from testifying in a professional capacity, as a physician or surgeon, in any case, shall assume the title of doctor, physician or surgeon, by means of any abbreviation, or by the use of any word or words, letters of the alphabet, of the English, or any other language, or any device of whatsoever kind, printed, written or painted, or exhibited in any advertisement, circular, handbill, letter or other instrument, nor on any card, sign, door or place whatsoever. Any person violating any provision of this act, shall be deemed guilty of a misdemeanor, and shall, on conviction thereof, be punished by a fine of not less than twenty-five dollars, nor more than one hundred dollars, or by imprisonment in the county jail, not less than ten days nor more than sixty days, for each offense." (Section 1, Chapter 256, laws of 1881.)

The margin note title to this section was: "Persons prohibited from practicing medicine."

The fourth section of this chapter is likewise of some importance as indicating the purpose that the legislature had in view in passing this chapter. That section provides as follows:

"Every person pretending to practice physic, or surgery, or both, shall, upon demand of any person, exhibit all diplomas or licenses

that he may have to practice physic or surgery, or both, and if such person, upon demand, shall refuse to exhibit such diplomas or license, any suit instigated against him under this chapter, shall not be considered malicious." (Section 4, chapter 256, laws of 1881.)

Five years later, by chapter 131, laws of 1887, the legislature passed a proviso to section 1436 R. S. 1878, by adding that in any criminal case the court may in the furtherance of justice allow a quack to testify as an expert without requiring proof of the incorporation of the medical society or college from which he graduated. But even previous to 1887 the legislature had also added a proviso to this section to the effect that students under the direction of a qualified practitioner might practice, and that women could practice midwifery and veterinary surgeons their specialty. By this act section 4 of chapter 256, laws of 1881, was also repealed. (Chapter 40, laws of 1882.)

The provisions of chapter 256, laws of 1881, as amended, are now practically incorporated in the revision of 1898, which provision is known as section 4603a.

Coming now to the revision of 1889, we find that section 1436 is identical with section 1436 of R. S. 1878 with the amendments already referred to incorporated therein. As we also find in this revision the section known as 1437a which incorporates the provision of chapter 256, laws of 1881, as amended. That this section was directed at quacks, our Supreme Court clearly recognized, by using the following language with reference to this section: "The law in this respect had not been changed by the act to prevent quacks from deceiving the people by assuming a professional title." (McNamara vs. Clintonville, 62 Wis., 210.)

After the revision of 1889 nothing more was done in this respect until 1897, when the legislature passed the chapter creating the Wisconsin Board of Medical Examiners and provided that all persons commencing the practice of medicine after the passage of that act, were required to receive a license from said board, and the receiving of such license was predicated upon having received a diploma from a medical college (the act provided what shall be considered a reputable medical college the diploma of which would be recognized), or upon the passing of an examination conducted by the board. This act also defined in what the practice of medicine consisted. This act is known as chapter 264, laws of 1897.

Then came chapter 87, laws of 1899, providing for the registration of reputable resident physicians who were in the actual practice of medicine on the 1st day of July, 1897.

Then came chapter 306, laws of 1901, which recognized Osteopathy in this state and added a member of that school to the Wisconsin Board of Medical Examiners.

Then came chapter 426, laws of 1903, which purported to be a revision of all the acts since 1897, and defined again what would be considered a reputable medical college or society and also what would be considered a reputable physician.

And finally there came chapter 423, laws of 1905, which made provisions for the revocation of licenses and certificates of registration

illegally secured and also defined what is to be considered unprofessional and dishonorable conduct.

Thus from this brief synopsis of the history of general medical legislation it appears that since 1878 the requirement of the statute, as far as qualifications were concerned, of a reputable physician was either the possession of a bona fide diploma from a bona fide medical college or society, or bona fide membership in some county or the state medical society legally organized in this state. Hence the claim that previous of 1897 anybody could practice medicine who wanted to even though he never attended any medical college or had never passed an examination of any kind, is absolutely unfounded. It is true that previous to 1881 it was not an offense to practice medicine without having the diploma or membership just referred to, but nevertheless our laws recognized the fact that nobody could be a reputable physician unless he had attended some bona fide medical college and completed a course in such college, or else was a member of a medical society, membership in which depended upon his diploma or else the passing of an examination conducted by such society.

c. HISTORY OF CHAPTER 422, LAWS OF 1905.

In considering the medical legislation now pending it is of some importance, in my judgment, to know the history of the passage of chapter 422, laws of 1905. Previous to the passage of this act there was no law upon our books which empowered any tribunal to revoke and set aside a certificate of registration or a license which had been secured by fraud, misrepresentation or through error, and there was also no provision in the law for revoking the same authority by reason of the dishonorable, unprofessional and immoral conduct of persons holding such certificate of authority. The experience of a few years had shown the absolute necessity of authority being vested somewhere to recall any authority given to persons practicing medicine and surgery where such authority was obtained by fraud or had been forfeited by subsequent unlawful and unprofessional conduct. It was for this reason that the friends of professional decency and the advocates of the protection of the public urged the passage of the act now under discussion.

Under the registration act of 1899, the Wisconsin Board of Medical Examiners was directed to register all physicians who were in the reputable practice of medicine on the first day of July, 1897. The act of 1897 did not include these practitioners. All registration was to be completed within one year from the passage and publication of the act of 1899. There were fifteen hundred practitioners who were affected by this act of 1899 and who were entitled to registration. This registration act was merely a record or roster of those who claimed to be entitled to practice medicine. Because of the fact that all had to be registered within one year, it was a physical impossibility for the Board to examine the qualifications of each separate applicant, and the result was that over a hundred people received certificates of registration who were not entitled thereto. Perhaps little or no harm

would have accrued had it not been for the fact that the act of 1903 placed the certificates of registration practically upon the same plane as licenses, and thus these unqualified persons who received the certificates of registration by fraud and misrepresentation, and in a few cases, through error, were apparently legalized practitioners. This condition of things was intolerable, in view of the purpose of all medical legislation, and therefore the enactment of chapter 422, laws of 1905, became an urgent public necessity.

It was also discovered that some who originally were authorized to practice medicine had been guilty of acts that were immoral, dishonorable and unprofessional, acts which from the viewpoint of common decency and the protection of the public ought to cause the revocation of the license or certificate of registration of the persons guilty thereof. This was the second reason for the enactment of the law of 1905.

At the time the enactment of this law of 1905 was under consideration, thirty-four states of the Union had laws similar in its provisions to the proposed law. This act of 1905 lodged the power of revocation in the Board of Medical Examiners, the same authority in which such power was lodged in thirty-three of the states then having similar laws upon their statute books. Violent and vigorous objections were urged against the passage of this act of 1905, but the crying need of such legislation overwhelmed the opposition to this enactment. Then the position was taken that the power of revocation should not be lodged in The Wisconsin Board of Medical Examiners, because it was conferring judicial powers upon an administrative body and that such legislation would therefore be unconstitutional. The unconstitutionality of the act as originally introduced was urged in the face of the fact that every court of last resort in the states having similar acts in force, where such laws had been challenged and construed, had sustained the constitutionality of such acts. Nevertheless, the friends of the proposed legislation were willing to accept the proposition that was made to have the powers of revocation lodged in the courts, and chapter 422, laws of 1905, was passed with such provisions contained in it.

The strongest, and in fact the only opposition to the passage of the law as originally proposed, came apparently from the newspapers, organized, as it was claimed, as The Wisconsin Newspapers Association. The representatives of this organization were compelled to admit, when crowded, that their real objection to the law was its prohibition of obscene medical advertising. This organization appeared before the committees of both houses apparently by attorneys; when the opposition could not kill the proposed legislation altogether, they urged that the power to revoke should be conferred upon our courts only. That the interests represented by this opposition gained some advantage by having the law thus amended appears from the fact that although almost two years have expired since its passage, only five certificates of registration and licenses have been revoked by the courts, and that only because there was no contest and judgment went by default. There are now some ten cases pending in the various

Circuit Courts of this state for the revocation of licenses or certificates of registration which were obtained by fraud, misrepresentation or through error, and those which ought to be forfeited by reason of unprofessional and immoral conduct since the passage of the act of 1905. These cases have been contested and every technical objection has been interposed, such as motions to make the complaints more definite and certain, demurrers to the complaint because the law is unconstitutional, and other technical objections. All these motions have been overruled and one case has been taken to the Supreme Court and the law has been sustained by our Appellate Court in all particulars. This is the case already cited, namely: State vs. Schaeffer, 109 N. W., 522.

It is now known that the real objection to the passage of the act of 1905, as originally introduced, came from the so-called advertising specialists who limit and confine their alleged medical treatment to the diseases known as private and sexual diseases, and who previous to 1905 most extensively advertised their alleged specialty and reaped rich harvests from the unfortunate and ignorant. It is now known that this vigorous objection to the law in question originated with, was fostered and financed by the twin Reinhardt brothers who were conducting an alleged medical institute in the city of Milwaukee, known as The Wisconsin Medical Institute and The Master Specialist. The method of these two Reinhardt brothers and the way they fleeced the people will be given a little later on in this brief. It is now also known that the attorneys who apparently appeared on behalf of The Wisconsin Newspapers Association, were paid by these Reinhardt brothers through their agent A. J. Wilson, who was their advertising, legislative and political representative. How actively these persons were interested and concerned in this legislation of 1905 appears from a letter written by this legislative agent Wilson, to the president of The Wisconsin Newspapers Association under date of August 16, 1906, which letter discussed a certain decision of the Supreme Court of Michigan sustaining a prosecution under a law of Michigan similar to our act of 1905. In this letter the following clause appears:

"But the practical and particular reason why I am enclosing these decisions to you is because the Michigan decision foreshadows an almost certain struggle before the Wisconsin legislature to change *our* Wisconsin law, which *we* secured in June, 1905, so that it will vest the power of revocation wholly with the state medical board as is done by the Michigan law."

To allay the fear of the friends of unrestricted medical advertising, obscene or otherwise, I desire to say in behalf of the advocates of the proposed medical legislation, that they do not urge or ask that the law of 1905 be changed so far as conferring the power to revoke licenses upon the courts of the state is concerned. We are satisfied to let our courts continue to do this work.

d. THE NECESSITY FOR FURTHER LEGISLATION.

It is proper to state here that after the passage of chapter 422, laws of 1905, it was hoped by the Wisconsin Board of Medical Ex-

aminers and the medical profession generally and those interested in medical legislation on behalf of the people, that the legislature had fully safe-guarded the people against imposition and danger so that further medical legislation would not be necessary for some years to come. This hope, however, was ill-founded. The skill with which shrewd and conscienceless medical imposters will circumvent the laws for the purpose of getting money from the people is really marvelous, and the persistency with which they ply their trade can be met only with such stringent legislation as will open the prison doors for them, unless they desist. That there is need for additional legislation, and that too of a most stringent and comprehensive nature, is clearly demonstrated by the experience of the past two years. To demonstrate this I shall cite but two or three examples.

It was anticipated that the definition of unprofessional conduct contained in section 2 of chapter 422, laws of 1905, would at once eliminate obscene and indecent medical advertisements. This anticipation likewise failed of realization. Although the grossly obscene advertisements appearing previous to the year 1905, were modified by the so-called specialists of peculiar diseases, yet the spirit of the law was constantly violated by advertisements which approached the prohibited line so closely that the object of prohibiting such advertisements was practically circumvented. The persons who caused these flaming medical advertisements to be inserted in newspapers, in which advertisements claims are made that they are specialists in diseases peculiar to men and women, very seldom advertise in their own full name but generally conceal their identity under alleged corporate names or co-partnership names. The purpose of this is to avoid responsibility for their fraudulent acts because a person induced to visit their establishments by reason of these advertisements, never knows with whom he is really dealing.

Thus one J. J. Stoner who had obtained a license in 1901, was conducting an alleged specialist's shop in the city of Milwaukee under the name of Dr. Stoner & Company. His advertisements were crude and he styled his institution as The World's Curative Institute. Upon an investigation of this man's institution and of his conduct, instituted under the supervision of the writer, it was discovered that although he claimed to have unusually well equipped offices and scientific appliances for the treatment and cure of his alleged specialties, for months at a time while he was out of the city his "curative institute" was conducted by a person who had never studied medicine and who knew nothing about diseases or the curative powers of medicine and drugs, but who nevertheless, in accordance with Stoner's instruction, diagnosed all cases that came to the alleged institute and prescribed medicines and remedies, these medicines and remedies having been theretofore prepared and were given indiscriminately for diseases which this uneducated and unskilled person might guess at. The purpose of this institution was to get all the money possible out of the persons who were foolish enough to apply at the offices for treatment. It was also discovered that this man Stoner was so careless in his fraudulent medical practice that he distributed obscene books and

leaflets. After this evidence had been secured, the writer hereof instituted an action to revoke his license for unprofessional, dishonorable and immoral conduct under the provision of the act of 1905.

As soon as service of the papers was secured upon this man Stoner, he closed up his shop and left the jurisdiction of the state and did not even dare to contest the case in the courts, and judgment was entered against him by default, revoking his license to practice medicine and surgery in the State of Wisconsin.

But this man Stoner was an amateur in the fake medical institute business as compared with the Reinhardts, heretofore referred to, who had been and still are trying to conduct a medical institute under the name of The Wisconsin Medical Institute. These two Reinhardts and their relatives have been conducting medical institutes in the city of Milwaukee under one name or another for the past seven years and have coined tens of thousands of dollars out of their fraudulent business. I propose here to give a very brief synopsis of this medical fraud, such synopsis giving the substance only of the amended complaint now on file in the Circuit Court of Milwaukee County, said complaint having been made by the Attorney General in the name of the State of Wisconsin, for the purpose of perpetually restraining and enjoining these people from continuing their unlawful and criminal acts under the guise of conducting a medical institute.

In order to correctly understand the method on which this fake medical institute business was conducted by these people, it is well to know who the persons are who were connected with this fraudulent business and their relationship to each other. Willis F. and Wallace A. Reinhardt are twin brothers. F. A. H. Reinhardt is an older brother. Mary Reinhardt is their mother. Della Hageman is their sister. William Hageman and J. M. Ruffner are their brothers-in-law, and M. C. Wolf was a former employee of theirs. In 1902 The Wisconsin Medical Institute was incorporated by Willis F. Reinhardt, Della R. Hageman and Mary Reinhardt. In 1904 The Master Specialist was incorporated by William Hageman, J. M. Ruffner and M. C. Wolf. These two alleged corporations conducted by them advertised under their corporate name and held themselves out as specialists in so-called private and secret diseases peculiar to men. The president of both corporations was L. J. Reinhardt, the wife of Wallace A. Reinhardt. The secretary of one corporation was Wallace A. Reinhardt, and of the other F. A. H. Reinhardt. The manager of the local office of both corporations was Willis F. Reinhardt. Although these two concerns were incorporated for the apparent purpose of conducting a medical institute, yet all its business, as far as business matters thereof was concerned, was conducted in the name of F. A. H. Reinhardt. Thus the lease of the premises occupied by them ran in his name, the bank deposits were made in his name, all the checks were signed in his name and all judgment notes were made payable to him.

These same people conducted three other alleged medical institutes, one at St. Paul, known as the Heidelberg Institute; another one at Chicago, known as the Vienna Medical Institute; and the third

one at Davenport, Iowa, known as the Copenhagen Institute. All these three other alleged medical institutes are conducted in the same way as the one at Milwaukee, namely, all formal business matters were conducted in the name of F. A. H. Reinhardt.

Advertising most extensively in the local and state newspapers under the names of these two corporations, and professing to be specialists in the particular diseases referred to, these Reinhardts have reaped a rich harvest by the way of returns from the fraudulent business during the last six years. Previous to coming to Milwaukee, the twin brothers Reinhardt conducted a fraudulent medical institute at Minneapolis, and when their fraud became so notorious that the grand jury began investigating their methods, an alleged sale of their institute to F. A. H. Reinhardt was made, and the twins disappeared, ostensibly going to Europe, but in fact making such trip to Europe via San Francisco, Hawaii and Australia. By reason of their fraudulent acts just referred to, the license to practice medicine of Wallace A. Reinhardt was revoked by the State Board of Medical Examiners of Minnesota on the 12th day of July, 1900. Willis F. Reinhardt never had a license in Minnesota, nor has he had one in Wisconsin, and, so far as the writer knows, the only state that has given him a license to practice is Illinois, and that fact is in doubt. After their rather unpleasant experience in Minneapolis, these twin brothers came to Milwaukee and conducted a so-called medical institute in their own names and later in the names of the Leipsic Doctors and the German-American Doctors, but finally formed the corporations already described.

While it is true that these people hired physicians who had a license to practice medicine in Wisconsin, yet their whole medical scheme was a fraud from beginning to end. They generally employed physicians just out of college and anxious to get any kind of practice, or those who had made a failure of life as well as of their practice and were willing to do any kind of work for the sake of ekeing out a precarious existence. A brief description of the way they conducted their fraudulent business will at once show the enormity of the fraud committed by these Reinhardts and the extent of their imposition upon the people of the state of Wisconsin. What follows is an abstract of the testimony given in the District Court in the trial of F. A. H. Reinhardt on the charge of conspiracy to defraud.

By far the largest number of their customers came from places outside of Milwaukee, and the victim generally began his experience of being fleeced by these men by sending a letter of inquiry to the institution by reason of having been attracted by the flaming advertisements. In response to this letter of inquiry there was sent a decoy letter written by the stenographer employed at the Institute, urging the expected victim to call at the Institute because a personal examination was necessary. Usually in response to such suggestion the victim was induced to call at their Institute and at the door was asked to give his name and address, which was then apparently sent in to the doctor who was always busy; but the reason this suggestion was made was to give the alleged doctor time to investigate the standing

and financial ability of the person whose name had just been sent in. Then the person was led into the office of the alleged doctor, who generally was Willis F. Reinhardt and who had absolutely no right to practice medicine in Wisconsin and whose claim of having graduated from any medical college whatever is most seriously disputed by people who know him best. The person thus calling was thoroughly examined by Reinhardt as to his residence, business or vocation, income and financial ability to pay, and was finally asked what he thought was the matter with him. No matter what ailment the victim thought he had or was suffering from, and no matter whether he was suffering from any ailment whatever the disease or alleged disease was diagnosed by this man Reinhardt as due to some so-called private or sexual ailment.

Then one of the doctors employed by these people was called in and told that this man was suffering from varicocele, and this employee of theirs then made another diagnosis of the case and, of course, found the cause to be the same as that named by his employer. The witness was then scared into the belief that his affliction was most serious and that immediate treatment was absolutely necessary, and various other means and devices were employed to place the alleged patient in such a frame of mind that he was willing to do almost anything for the sake of being cured. If the alleged patient demanded a guarantee, these men did not stop at that but would give a written guarantee to cure the most incurable disease known to the medical profession. Then the victim was told that the treatment would be all the way from fifty dollars to five hundred dollars, depending upon what the Reinhardts had concluded they could extort from the victim entirely within their power. If the alleged patient had any money with him it was taken away from him at once. If he did not have sufficient funds in his possession, all that could be secured from him was taken and he was induced to sign a judgment for the balance. Then began the "stringing" of this alleged patient, and after they had sent him such medicine as they thought sufficient to keep him upon their list of patients, and the patient became dissatisfied because of having received no benefit from their treatment, he was induced to come in again for another examination, and if he was foolish and credulous enough to be imposed upon, he was told that another disease had been discovered and that treatment for that disease was necessary and that an additional sum of money would have to be paid to cure this ailment. In this way they secured large sums of money from a great number of persons and induced some of them to take treatment from them for one alleged disease or another for years, and when finally the victim could not be fleeced any more, he was told that he was cured, even though he was not, and if he came again the door was closed upon him and he was told to remain away. If the victim insisted upon a settlement and a return of the money for which no services had been rendered and was shrewd enough to get an attorney to enforce his claim, in some few cases where suits were threatened and exposure in open court stared them in the face, settlements were made and part of the money extorted was returned.

This is but an outline of the methods employed by these people who reaped large returns through fraud, extortion and false pretenses.

I shall give a few examples, the names, however, I must omit for reasons of public policy. Thus in January, 1906, a coachman called at their offices and complained of having rheumatism. Willis F. Reinhardt examined him and told him that his ailment was hydrocele, and although the alleged patient told him that he never had that disease, yet he was induced to believe that he had it and was also induced on the same date to pay Reinhardt three hundred and ten dollars under the guarantee of a cure. He was induced to continue this treatment for five months, calling at the office of the Institute frequently, but received no benefit whatever. When this man insisted upon being cured or that his money be returned, the door was shut in his face and he was told to remain away from the office. He still had his rheumatic pains and after he had been shut out from the Institute, he went to a drug store and bought some staple remedy, paying one dollar therefor, and immediate relief was the result. This man went to an attorney, presented his claim, and the attorney compelled these Reinhardts to return two hundred dollars of this man's money.

Another man from the interior of the state was induced by the advertisements of these people to come to Milwaukee and visit their offices for the purpose of an examination. He had been suffering from heart disease and he was told by the man who conducted the alleged examination that his heart trouble was due to sexual weakness, and that his disease would be cured by them for the sum of two hundred and fifty dollars. But he was told it was necessary also to wear an electric belt, and in addition to this two hundred and fifty dollars he was induced to pay ten dollars for this appliance; after taking treatments for some time and having received no benefit, he was induced again to call at their office and was then told that his disease was due to organic stricture, although he had never been subject to that disease, and was induced to pay another sum of two hundred and sixty-five dollars for treatments to cure this imaginary disease; still receiving no benefit from their treatment he was again induced to call at their office and then was told it was necessary for him to take treatment for the spine and also to purchase a brace for which he paid the sum of thirty-five dollars, and finally when he insisted that something be done to relieve him from this ailment, he was told that it was necessary to pay them one hundred dollars before he could be cured; he thereupon told them he had paid them sufficient money to be cured and was then being treated for all diseases that human flesh is heir to, and these people locked the door on this man and told him that they would not let him go until he paid this sum; he then gave them all the money he had, eighty dollars, and discontinued any further treatment. He had given them the sum of six hundred and forty dollars and in return received no benefit.

Another man from the interior of the state attracted by the flaming advertisements of these people came to the city and called at their office, and after he had been thoroughly examined as to his financial condition his income and his business affairs, he was told that his

disease was varicocele and that he was in a very serious condition and immediate treatment was necessary. This man was in fact suffering from a slight attack of paralysis but he was induced to believe that said paralysis was due to varicocele and was also induced to pay the sum of one hundred and fifty dollars for an alleged treatment of this alleged disease. After he had received treatments for some time and had received no benefit and had so informed these people, he was induced to call again at their office and was then informed that he was suffering from the piles and this fact was interfering with the effectiveness of their treatment. He was then asked to pay the further sum of one hundred dollars in order to be cured of this ailment. This man refusing to pay one hundred dollars they accepted fifty dollars and he was induced to receive treatment for the piles. Of course, he received no more benefit from the second treatment than he received from the first, and after they had secured two hundred dollars from him he discontinued any further treatment. In fact this man had never been suffering from varicocele and was not afflicted with piles.

The writer hereof could continue giving concrete examples of how people were fleeced by these men, but those given are deemed sufficient to indicate the methods most criminal in their nature, these Reinhardts employed to extort money from the ignorant, the credulous and the unfortunate.

When the facts with reference to this alleged medical institute, a brief outline of which has just been given, were discovered after a long and arduous investigation, they were laid before the attorney general of the state, and after a careful investigation of the law on the subject, this officer began an action in the Circuit Court, restraining the corporation known as The Master Specialist and the officers, stockholders and managers of such corporation from continuing their unlawful business. This action was brought under the provisions of section 3236 of the statutes, which provides that the attorney general may bring an action restraining a corporation from assuming or exercising any franchise, liberty or privilege or transacting any business not authorized by its charter, and restraining any individual from exercising any franchise, liberty or privilege not granted a corporation by any law of the state. A temporary restraining order was secured upon the complaint forbidding the corporation in question and its officers and agents from continuing its business in any way. This order was signed by the court on the 28th of December, 1906, but it appears that the Reinhardts had been kept well advised of every move made by the authorities to restrain and prevent their unlawful business. After all of the relatives of the Reinhardts, who resided in Milwaukee, had been induced to leave the state, and all of the persons who it was supposed by them might furnish evidence against them had likewise been removed from the state, then F. A. H. Reinhardt appeared in Milwaukee and process was served upon him in the civil action just mentioned, and he was also arrested for a conspiracy with his brothers and one A. J. Wilson to defraud the public generally.

It is needless to state that the twin brothers had left the state immediately upon learning of the injunction issued by the Circuit

Court, and have remained outside of the jurisdiction of our courts ever since. Shrewd and skillful attorneys were retained to defend the Reinhardts who had submitted to the processes of our court, and a determined fight was made in the Circuit Court to vacate the temporary restraining order, and after a large number of hearings and considerable argument, the temporary restraining order was modified in some particulars but the substance thereof was continued in force.

Notwithstanding the comprehensiveness and positiveness of the original temporary restraining order, F. A. H. Reinhardt attempted to carry on and continue the business of the Institute in a roundabout way. For this conduct he was brought before the court for contempt, and after an extensive hearing and the taking of oral testimony, the court found him guilty of such contempt and fined him one hundred fifty ($150) dollars and costs. After an amended complaint had been prepared and served on him upon which another temporary restraining order was issued, and before the matter thus raised could be heard before the court, the alleged stockholders of the corporation known as The Master Specialist, apparently passed a resolution dissolving said corporation and filed such dissolution with the secretary of state and recorded it with the register of deeds for Milwaukee County. The corporation known as The Wisconsin Medical Institute had gone through the same process of apparent dissolution before the action herein referred to could be begun by the service of the papers upon the defendants. It seems that there was another corporation in existence known as the State Medical Institute, but this corporation had never been thoroughly and fully organized, and a resolution of dissolution of this corporation was also filed and recorded.

By these moves it was expected that all the actions against these corporations by the state would have to be dropped, and the Reinhardts, in some way, might again take up their alleged medical business and continue conducting a so-called medical Institute. The court, after examining the law on the subject, decided that the civil actions would have to be dismissed, and they were dismissed with costs against the defendants. The state, however, gained this advantage in these injunctional proceedings, namely, that it made it impossible for the Reinhardts to conduct an alleged medical institute under the guise of a corporation with its officers and directors non-residents, and thus leave no responsible party within the jurisdiction of the state who could be held liable for any unlawful acts done by them in connection with their institute. They are now compelled to conduct an alleged medical institute under the management of some person whose name is known or can be easily learned and who can, in case of unlawful acts on their part, be brought before the courts and held responsible therefor.

These people, immediately after the case was dismissed, opened their institute again at the old place under the name of the Wisconsin Medical Institute (not inc.). This, of course, is a gross and very apparent deception and circumvention of the law but under the law as it now stands the state is helpless to prevent such deception and circumvention. The defendant, F. A. H. Reinhardt, who had submitted

to the processes of the courts of this state, inserted an advertisement signed by the Wisconsin Medical Institute (not inc.). For this advertisement he was arrested on the charge of holding himself out as a physician without having a license so to do. Upon this charge he was tried in the District Court, of the city of Milwaukee and convicted on the 25th day of March, 1907, and fined fifty ($50) dollars and costs. Since said date he has inserted one advertisement giving the name of one of their doctors who has a certificate of registration, as the physician in charge. This advertisement probably does not come within our medical laws as they now stand and consequently he has not been arrested.

In this connection it is proper to state that the conspiracy action hereinbefore referred to against F. A. H. Reinhardt, was concluded in the District Court of the city of Milwaukee on the 22nd day of March, 1907, and the court found him guilty and fined him five hundred ($500) dollars and costs. Of course, he appealed to the Municipal Court and the case is now there pending.

There are other cases where the decency of the community has been violated by persons who claim to be specialists under one guise or another and have fleeced the people by false representations and by flaming and untruthful advertisements in the newspapers. It is, however, unnecesary, in my judgment, to give more examples of this reprehensible and unlawful conduct on the part of the charlatans and quacks. Suffice it to say that it is my deliberate opinion, based upon an experience of ten years in studying medical legislation and watching medical practices of certain classes of people, that not a single so-called medical institute advertising in the papers of this state and other states is conducted honestly, but every one of these institutes, as far as I have been able to learn, is a fraud from beginning to end, and it strikes us that the people of the State of Wisconsin have been fleeced long enough by these vampires of the medical profession so that the legislature of this state ought to be more than ready and willing to give us remedial and protective legislation along the lines herein suggested, to the end that the weak, the credulous and the unfortunate, for whose protection primarily all laws are enacted, may receive that protection under the police power of the state to which they are entitled.

e. ADDITIONAL SUGGESTIONS AS TO PARTICULAR BILLS.

I deem it advisable to submit some suggestions as to medical bills now pending before the legislature, and first as to

1. Bill No. 314 S.

This bill defines more in detail the practice of medicine by amending section 6 of chapter 426, laws of 1903. It is proper to say that this bill has been amended by its friends before the committee on public health by striking out the words "appliance, operation or treatment of whatever nature."

The purpose of this bill is to give a positive and explicit definition of the practice of medicine. Such definition is required by our courts

and is absolutely necessary for our juries. Juries in justice courts particularly, where most of the violations of our medical laws have to be litigated, need a very explicit and comprehensive definition of medicine in order to be convinced of the guilt of any one who is brought before them for trial. To meet this exigency is the purpose of this bill.

Under the law, as it now stands, we have been unable to secure conviction in cases where the testimony was over-whelming, to the effect that the particular defendant had violated our medical laws. Such cases were the spasm case of St. Croix County, the bone setter case of La Crosse County, the moonshine case of Monroe County and the cancer case of Milwaukee County, and a large number of other extreme cases of quackery.

Some objections have been made to section two of this act but this section merely provides for a rule of evidence in prosecutions arising under the medical laws. Such rule of evidence can be lawfully enacted by the legislature. In support of this statement it is but necessary to refer to similar rules of evidence provided by section 4581 G, 4565 E, 4419, 4449 and a large number of other sections of our statutes now in force.

This bill does not include Christian Scientists, Swedish Movement practitioners and Physical Culture practitioners who honestly follow their profession.

A much more comprehensive definition of the practice of medicine than the one now proposed was sustained by the Supreme Court of Ohio in the case of Marble vs. State, 73 N. E. 1063.

2. Bill No. 315 S.

This bill amends section two of Chapter 422, laws of 1905, and is intended to give a more comprehensive and most necessary definition of what shall be considered immoral, unprofessional and dishonorable conduct on the part of licensed and registered physicians. The necessity for such an amendment appears from what I have said with reference to these advertising medical institutes and other fraudulent medical concerns.

This definition is practically identical with the provisions of Bill No. 449 S, to which I shall presently refer, but is stronger in some of its detailed provisions as to obscene advertising. These clauses, we think, ought to stand because the act is confined to the conduct of physicians only in this regard while the "advertising bill" refers to all persons and includes the newspapers. I feel that a discussion in favor of this bill is unnecessary because no person will claim that a physician ought to be allowed to advertise any of the things prohibited by this bill. It is always to be remembered that no person can be compelled to surrender his license or certificate of registration under the provisions of this bill until a court of competent jurisdiction has determined that he has been guilty of this unprofessional, dishonorable and immoral conduct prohibited by this proposed legislation.

If the advertising condemned by this bill is made *ipso facto* unprofessional conduct then the fraudulent institutes already discussed can be reached even though they employ licensed physicians. It is to be noted in this connection that not a single reputable practitioner of

medicine opposes this bill, but on the other hand, every one endorses it. I do not think that the newspapers even are opposed to this proposed legislation, and hence any opposition if there is any, comes from that class of people who ought not to be tolerated in any civilized community, namely those people who exploit the weakness and credulity of those who may be lured by untruthful advertisements into the belief that they need medical treatment and have said belief met by fake and dangerous treatment, for which treatment they pay extravagant sums in money and by reason whereof their health is often impaired, some times beyond the possibility of a permanent restoration.

3. Bill No. 449 S.

This is the bill under the provisions of which the advertising of treatment of venereal and sexual diseases is prohibited. This bill is not intended to provoke a contest between the non-advertising and the advertising doctors, nor is it intended to settle that contest. It is admitted that a doctor may legitimately advertise his professional ability. This bill is aimed at illegitimate, fraudulent and obscene medical advertising. But a very small percentage of the medical profession advertise at all. Aside from inserting cards in the newspapers giving the location of the office and the office hours, not one per cent. of the medical profession advertise at all. I repeat, however, that legitimate medical advertising is possible and is in no way affected by this bill.

The necessity for some legislation of the nature provided for by this bill is established by the recital of the Stoner and Reinhardt cases herein contained, and other cases of medical frauds that might be mentioned. It is not my purpose to repeat, even in substance, these concrete examples of the necessity of legislation of this kind. I desire to submit just two or three general propositions in favor of the necessity of a bill prohibiting the advertising of the treatment of sexual and venereal diseases.

First, people who are actually affected with diseases of this kind generally make the fatal mistake of not going to their family physician but seek the services of these advertising concerns, doctors, and others, under the false hope that they will receive absolutely secret and efficient treatment. In fact, the advertisements always contain the statement that diseases of this kind are secretly treated and a cure guaranteed. By reason of this mistaken disposition on the part of the persons who are unfortunate enough to be thus afflicted, the doors are opened wide for the fraudulent practices in this class of diseases, to some of which I have already referred.

Second, persons who are not even afflicted with any of these diseases are easily induced to believe that they are, and the advertisements inserted by these fraudulent institutes and persons are so worded as to make any credulous person believe that he is afflicted with some serious private ailment. If these credulous people can be induced to call at the offices of these charlatans, it is an easy matter for them to diagnose a perfectly healthy case as one of a seriously complicated, private and venereal ailment. The fears of the alleged patient having

thus been aroused, it is an easy matter then to fleece him out of large sums of money under the guise of a guaranteed cure, and even if the victim later discovers that he has been defrauded he is very loath to make any complaint about the matter because he desires to avoid the notoriety that will result from an exposure of his unfortunate experience.

Third, the advertising of this class of diseases, as I have already shown, gives the most excellent opportunity for the confidence man and the rogue to defraud the public and to fill his coffers with the coin of the dupes. It is not necessary for me to expatiate upon this proposition because past experience has established the same beyond the possibility of a doubt.

Our newspaper friends object to the provision of this bill which prevents them from accepting the advertising therein condemned and punishes them if they do allow such advertisements to be published. This provision has been included for the reason that it is found almost impossible to prevent these frauds from getting some kind of advertisements into the papers unless the papers themselves are prohibited from accepting them. A law of the kind herein proposed has been enacted in the state of Washington and has been most effectual in preventing and prohibiting this class of advertising in that state.

Another reason why we urge that the prohibition contained in this bill be applied to owners and publishers of newspapers is that in case residents of our state are prohibited from printing the advertising condemned by this bill, concerns and persons living outside of the state, and more particularly in Chicago, will then attempt to advertise in the papers of Wisconsin, and if the papers are willing to accept them, will thus secure the means of defrauding citizens of this state without fear of punishment because they are beyond the jurisdiction of this state.

That the legislation herein urged is constitutional and will be sustained by our courts, is proven by the decision of the Supreme Court of Michigan. In that state a law much more comprehensive than the one here urged was sustained recently by the case of Kennedy vs. Board, 108 N. W. 730.

This brief is submitted as an argument in favor of the passage of bills No. 314 S, 315 S and 449 S. But there is one bill pending against the passage of which I desire to submit some considerations in this connection. This is the bill known as

Bill No. 416 S.

This bill is an attempt to revise practically the whole of our medical legislation now in force. While it revises some of the phraseology of our medical acts and in a very few instances improves the same, yet if this bill should be enacted as introduced, it would most thoroughly emasculate our medical legislation so as to make the same of no value whatever so far as protection to the public against ignorant, unskilled and fraudulent practitioners of medicine is concerned. Thus the second paragraph of the first section of the bill, by striking out the words of the present enactment would make that part of our medical laws absolutely unintelligible. It also so revises

in this second paragraph of the first section the requirements of a medical education as to make it possible to take almost two courses of medicine in one calendar year. Thus it would make it possible to complete four years' course of medicine in twenty-eight months, considerable less than three years. This is a great step backward and would reduce the requirements of medical education in the state of Wisconsin to less than that required by any other state in the Union.

The revision proposed by subdivision eight of the first section of the bill is absolutely unnecessary, because at this time there is no list of exempted students on file with the Wisconsin Board of Medical Examiners.

The ninth subdivision of the first section of this bill strikes out entirely the requirement of a diploma from a reputable medical college as a necessary qualification for receiving a license. For almost sixty years the laws of Wisconsin have demanded that a person desiring to practice medicine have a diploma either from a reputable medical college or from the state or some county medical society, given him after a technical examination. But this act now purposes to strike out this requirement and such a step backward in our medical legislation certainly ought not to be taken.

The tenth subdivision of this section provides that anybody who received a certificate of registration under the provisions of the law of 1899 shall be licensed upon presenting such certificate for surrender if accompanied by a diploma. This subdivision merely rewrites the one now in force and is absolutely unnecessary.

Section two of the act defines in effect what shall be a reputable practitioner of medicine in Wisconsin, and amends the present law by striking out the requisite of the possession of a diploma from a reputable medical college or of a certificate of membership in the medical society. I have just mentioned the fact that these two requisites have been demanded by our laws for almost sixty years. The enactment of this section would be nothing more than legalizing quacks.

The third section of this bill attempts to revise the equivalent section now in force in our state and greatly weakens the force and effect of that part of our medical law by such revision. In the first place it protects all past licenses and certificates issued, no matter how secured, and makes the immoral, dishonorable and unprofessional conduct a cause for revocation only in such cases where such license is issued hereafter. If this is not unfair and class legislation, then the writer hereof is unfamiliar with such kind of legislation. Why should those who now have licenses be protected in holding the same, no matter how immoral, dishonorable or unprofessional their conduct may be? It also strikes out the provision authorizing the courts to revoke a license or certificate of registration where the same was obtained through error. This power to revoke licenses obtained through error has been established in a good many states and wherever such power has been established, the courts have sustained it. In fact thirty-four states of the Union have a similar provision in their medical laws. This proposed amendment evidently is based upon the idea that if a certificate of registration or a license has once been

granted, no matter though gross error was committed in granting the same, the holder has a vested right in said license or certificate of registration and hence it ought not to be revoked. In other words, the purpose is to protect the holder of such license or certificate of registration and not the public. This is a wrong doctrine as has been announced by our own Supreme Court, already cited, namely the case of State vs. Schaeffer, 109 N. W. 522.

This amendment also strikes out the provisions of the law of 1905 with reference to procedure in actions brought to revoke licenses and certificates of registration. It strikes out that provision which allows special counsel to be appointed to assist the district attorney in prosecuting these actions. There is, no doubt, a purpose in striking out this provision but it is hardly proper for the writer of this brief to discuss that proposition. This amendment further strikes out that provision of the existing law which makes it possible to punish persons whose licenses or certificates of registration have been revoked and who attempt, after such revocation, to practice medicine. Possibly this provision in the old law is unnecessary but it was inserted for the purpose of giving all persons notice that after their certificates of registration or license had been revoked, they are no longer entitled to practice medicine.

By section four of this bill it is provided that every person who has a certificate of registration, no matter how secured, shall be a legalized practitioner of medicine in Wisconsin. Of course, this provision of the proposed bill is inserted on behalf of the quacks and a large number of persons who, during the year 1899 received certificates of registration by fraud and misrepresentation and through error. To prove this, allow me to call attention to the fact that there are nine cases now pending in the Circuit Court of Milwaukee County alone for the revocation of certificates of registration obtained through fraud, perjury, misrepresentation and through error. In addition to these there are thirty-one other cases in which the Wisconsin Board of Medical Examiners has instructed me to bring action to revoke the certificates of registration held by these persons because they were not entitled to them under any circumstances, and because holding them and practicing medicine under them is a gross violation of the law and an imposition upon the people of our state. All these cases would have to fall if this amendment should be enacted into a law. In addition to these cases already mentioned, there are twenty-nine others in which an investigation has been ordered because it is extremely doubtful whether these persons ought to be allowed to continue to practice medicine under the certificates of registration they secured in 1899.

To show you how necessary the continuance of the law as it now stands is I wish to submit concrete cases in this connection. In a case now pending in the Circuit Court for Outagamie County, the defendant secured a certificate of registration in 1899, and although the law provided that only reputable practitioners of medicine were to receive certificates, this man, discharged from the State's Prison at Waupun, where he had been sentenced upon a conviction on the charge of

adultery on the 14th day of February, 1899, within six months thereafter made application for registration, stating that he was a reputable practitioner of medicine. He had never received any medical education whatever but had been a white-washer, paper hanger and jack of all trades for a good many years, and had secured a diploma from a fake Chicago medical college, upon the payment of twenty-five dollars. In his answer to the complaint filed in this case, he admits that he served time in the State's Prison but denied that it was his duty to tell the Board of that fact. It is proper to state that the senator who introduced the bill now under discussion is one of the attorneys for this defendant.

In another case pending in the Circuit Court for Milwaukee County, a man secured a certificate of registration upon statement made under oath that he was a graduate from a reputable and well known medical college in Europe and also a graduate of a number of colleges in this country, although in fact he never attended any medical college whatever and had purchased a number of diplomas from fake medical colleges.

In another case, also pending in the Circuit Court for Milwaukee County, a man received a certificate of registration who never studied medicine at all but who had been treating people for a large number of years by means of shells and water which he magnetized, and made people believe that he could cure them if they would drink this water or put the shells under their pillow at night.

These are but samples of cases that have been thoroughly investigated and the evidence collected, showing that during the rush for certificates of registration, created by the act of 1899, many received certificates who were absolutely not entitled to them. If the amendment now under discussion should be passed by this legislature these people could continue their apparently legalized quackery without any fear of interference by anybody. It would seem unnecessary to urge that such an unfortunate situation ought *not* to be created by the enactment of this proposed amendment.

Bill No. 416S ought to be indefinitely postponed.

In order that the members of the legislature may have detailed information, if they desire it, of the evidence submitted to the District Court for Milwaukee County in the conspiracy case against the Reinhardts and The Wisconsin Medical Institute, a complete and correct transcript of all the testimony taken has been filed with the Legislative Reference Library. It was impracticable to attach or leave the exhibits used upon the trial, but this transcript will furnish reliable facts in reference to this colossal fraud and will demonstrate the necessity of the remedial medical legislation urged in this brief.

This brief has been prepared and printed for the purpose of distribution among the members of the Legislature of Wisconsin for 1907 so that the views of those interested in medical legislation, on behalf of the people, might be available in a permanent form. The brief

is submitted in favor of the passage of Bills No. 314 S, 315 S and 449 S and against the passage of Bill No. 416 S.

Respectfully,

A. C. UMBREIT,

Attorney for the Wisconsin Board of Medical Examiners, The State Medical Society of Wisconsin, The Milwaukee Medical Society and the Milwaukee County Medical Society.

(Copies of this brief may be obtained by applying to Dr. A. W. Gray, Goldsmith Building, Milwaukee, and enclosing one cent for postage.)

The Surgical Treatment of Exophthalmic Goiter.— While surgery is admittedly contraindicated in many cases of exophthalmic goiter, F. J. SHEPHERD, Montreal (*Journal A. M. A.*, Sept. 1), maintains that in a certain proportion operative measures are curative or lead to decided improvement. The probable cause is hyperactivity of the thyroid, but the part played by the thymus and other causes in this disease complex can not be entirely ignored. Shepherd thinks that early operation is safest and that the class of cases most likely to be benefited are not the most severe ones, but those in which the gland is more enlarged on one side than on the other, with more definite tumor formation, and in which the gland is not excessively vascular and the enlargement has preceded the symptoms by years. In those early cases of enlarged thyroid with mild symptoms in which the gland is soft, vascular and evenly enlarged throughout, the results of operation are usually good. With large vascular thyroid and symptoms of marked toxemia from thyroidism operations should be avoided. He notes the disinclination of most physicians to operate and gives statistics from various operators showing good after-effects and low mortality.. Nor does he consider general anesthesia as specially dangerous in selected cases. Fourteen cases of his own and three of certain of his colleagues are reported. There were three deaths, all in desperate cases, nine complete cures, three patients were much improved, one relapsed and one has been lost sight of though improvement followed operation. Sixteen of the patients were females. In all, the operation was called for on account of distressing symptoms. The diagnoses were clinical. He does not believe the pathology of the disease is sufficiently definite to make the microscopic examination of first importance.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

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A. J. BURGESS, Milwaukee, 1st Vice-President.

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CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

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2nd Dist., G. Windesheim,	Kenosha	8th Dist., T. J. Redelings,	Marinette
FOR TWO YEARS.		FOR FIVE YEARS.	
3rd Dist., F. T. Nye,	Beloit	9th Dist., D. L. Sauerhering,	Wausau
4th Dist., W. Cunningham,	Platteville	10th Dist., E. L. Boothby,	Hammond
FOR THREE YEARS.		FOR SIX YEARS.	
5th Dist., J. V. Mears,	Fond du Lac	11th Dist., J. M. Dodd,	Ashland
6th Dist., J. S. Walbridge,	Berlin	12th Dist., A T. Holbrook,	Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

COLUMBIA COUNTY MEDICAL SOCIETY.

At a meeting of the Columbia County Medical Society at Portage the following resolutions were unanimously adopted:

1. That the following preamble and resolutions are adopted by this society in session at Portage, Wisconsin.

Whereas, Many of the life insurance companies have notified their medical examiners of reduction of examining fee from $5 to $3; and

Whereas, We, as physicians, realizing the responsibility incident to proper examination of the individual, believe such reduction to be unjust; therefore be it

Resolved, That the Columbia County Medical Society, and the medical profession in sympathy with them, in session assembled, do hereby declare such reduction to be unjust, and respectfully request that no physician legally authorized to practice medicine in Wisconsin accept such reduction of fee; and further, that any physician accepting such reduction be guilty of a breach of professional courtesy.

Resolved, That it is the sense of this Society that hereafter in each examination for life insurance in which urine analysis is required the minimum fee shall be $5.

Resolved, That the several component societies forming the State Association be requested to adopt these resolutions.

2. That the above rates shall not apply to industrial medical inspections, without urinary analysis, for amounts less than $1,000.

3. That no member of this society enter into any contract or agreement with any corporation, society, association, company or individual, to examine applicants for insurance for any stated salary or lump sum, thereby evading the spirit and instinct of the foregoing resolutions.

4. That the payment of all fees shall be authorized by the home office of the society or corporation to which such application is made, and under no circumstances shall an examiner receive or accept any part of this fee from an agent or any other person or corporation, unless the full fee be paid by authority of the home office.

5. That each member of this society pledge himself or herself, in case a fellow-member be removed from the position of examiner for any corporation or society solely because of this action of the medical profession, that he or she will not accept an appointment from such corporation or society as examiner, nor make any examination for same in Wisconsin.

6. That each member of this society bind himself or herself, by a pledge to be presented by him or her to the secretary, to abide by these resolutions.

7. That the secretary be instructed to forward a copy of these resolutions to each county medical society in Wisconsin for adoption.

8. That these resolutions be printed in the Wisconsin Medical Journal and a copy forwarded to The Journal of the American Medical Association.

B. C. MEACHER, M. D., *President.*
A. W. JONES, M. D., *Secretary.*

DUNN COUNTY MEDICAL SOCIETY.

The Dunn County Medical Society held its regular monthly meeting Tuesday, April 16th. Dr. Herriman exhibited a patient with locomotor ataxia who was cured of a morphine habit of eight years duration at home.

Dr. D. H. Decker read an interesting paper on *Artificial Respiration.* A general discussion on *Symptoms of Gall Stones* followed, in which many new and helpful points were brought out.

Dr. L. Kortgaard of Menomonie was elected to membership.

A committee consisting of Drs. E. H. Grannis and A. F. Heising was appointed to draw up resolutions in memory of our esteemed colleague Dr. Feustod, who died April 12th.

After some discussion on pending medical legislation, a letter signed by all members present was written to our senator and assemblyman asking their support for bills advocated by the legislative committee of the State Society. Adjourned to May 21st.

F. E. BUTLER, M. D., *Secretary.*

LA CROSSE COUNTY MEDICAL SOCIETY.

The La Crosse County Medical Society held its regular monthly meeting on April 4th. The meeting was well attended. Dr. E. M. Turner of La Crosse read a paper on *Epilepsy.* The doctor gave a careful description of

the epileptic attack, citing many cases from personal observations. The three varieties of the malady were each well presented.

Dr. M. V. Dvorak exhibited blood slides of lymphatic leukemia and pernicious anemia.

Dr. D. W. Taylor of Bangor was admitted to membership.

CHAS. H. MARQUARDT, M. D., *Secretary.*

LANGLADE COUNTY MEDICAL SOCIETY.

The Langlade County Medical Society met April 12th at Antigo with nearly every member present.

Dr. G. H. Williamson (president of the society) was elected delegate to the State Convention at Superior and Dr. W. F. Austria the alternate. The following resolutions were presented and adopted:

That we endorse Bills No. 314, 315 and 449 and send in a copy of same to Senator J. H. Noble.

That we endorse bill which is now pending granting an appropriation for a pre-medical course to be given at the University of Wisconsin and to have printed in the local papers a copy of this resolution.

A paper on *Nephritis* including chronic interstitial and parenchymatous was read by Dr. F. V. Watson, followed by one on *Fractures* by Dr. Geo. W. Moore; both papers were interesting, brought forth many strong points, and were followed by a warm discussion by all members present.

After the meeting a banquet was given by Dr. M. J. Donohue to the members of the society. Our next meeting will be June 14th.

GEO. W. MOORE, M. D., *Secretary.*

MONROE COUNTY MEDICAL SOCIETY.

The annual meeting of the Monroe County Medical Society was held at Tomah, January 31, 1907. During the afternoon the society was entertained at the Tomah Hospital, where a surgical clinic was given by Dr. H. Reineking of Milwaukee.

The annual meeting was held at the offices of Drs. Quigg and Winter in the evening. Twelve members and four visitors were present. The following officers were elected for the ensuing year: President, Dr. C. E. Quigg; vice-president, Dr. J. G. Seidel; secretary and treasurer, Dr. C. M. Beebe; delegate, Dr. W. T. Sarles; censors, Drs. F. P. Stiles, Dr. C. H. Cremer, and Dr. A. R. Bell.

Drs. W. G. Merrill and A. L. Allen were voted into membership.

The following resolution was adopted: "Resolved, that this society petition our senator and assemblyman to support the bill before the present legislature which will allow the state to appeal from adverse justice court decisions."

Meeting adjourned *sine die.*

C. M. BEEBE, M. D., *Secretary.*

(Meeting of March 26, 1907.)

The Monroe County Medical Society met at Sparta pursuant to call. Fourteen members were present who participated in the discussion of papers on *Therapeutics* by Drs. F. P. Stiles, W. G. Merrill, and C. M. Beebe.

The meeting was adjourned *sine die.*

W. G. FORD, M. D., *Secretary pro tem.*

ST. CROIX COUNTY MEDICAL SOCIETY.

The St. Croix County Medical Society met at New Richmond, March 19th, and was called to order by the president, Dr. W. H. Banks, of Roberts. Six members and five visitors were present and participated in the program.

Dr. E. B. Bradford, of Hudson, Superintendent of the Hudson Sanitorium, was admitted to membership by card from the Milwaukee County Medical Society. The following applications were received and filed for future action, viz.: Drs. W. Lord, G. B. Swenson, L. A. Campbell, and W. H. Park.

The Committee on Legislation reported adversely to the establishment of a medical school in connection with the State University. Adopted.

Dr. F. W. Epley presented a clinical case of injury to the elbow joint. Dr. Hedback of Minneapolis exhibited some beautiful skiagrams of fractures of the long bones which had occurred in his practice, together with a history of the cases and their treatment. Dr. Hedback's remarks were very interesting and instructive and he was given a vote of thanks by the Society.

Dr. F. W. Epley read a most excellent and carefully prepared essay on *Professional Fellowship*, which showed the essayist to be in full accord with the principles of medical ethics as promulgated by the A. M. A. The subject was most thoroughly discussed by both members and visitors and the Principles of Ethics of the A. M. A. read by the secretary. One paper was deferred to next meeting for want of time.

At two o'clock the society repaired to a place of restitution provided by the generosity of the New Richmond brothers where we partook of a most excellent collation and when the inner man was satisfied the president made a few apt remarks followed by others. After declaring that this was the "best ever" and that the New Richmond brothers were "all right" the society adjourned to meet at Hudson, May 21st.

The secretary reported that every member had paid his dues for the year 1907, and he was requested to forward the state dues for 14 members to the secretary of the State Society.

At the next meeting Dr. Epley of Baldwin will read a paper on "Hominis Adipati Genus," and Dr. Mayer will read a paper on State Medicine. Dr. Mayer is a member of the State Board of Control.

The district meeting in November will be devoted entirely to State Medicine and every county society in the tenth district is requested to prepare a part of the program along this line, particulars later.

E. L. BOOTHBY, M. D., *Secretary.*

WASHINGTON COUNTY MEDICAL SOCIETY.

The Washington County Medical Society held its regular meeting at Allenton, March 27, the president in the chair. After listening to a paper by Dr. H. H. Albers on *Rigid os uteri in labor*, all the members present took part in the discussion. The other routine business was dispensed with, and the bills now before the legislature were fully discussed and the following resolutions passed:

Resolved, That the Washington County Medical Society heartily endorses the bills Nos. 314S, 315S, 449S and 452S, and hereby earnestly urges their passage.

Resolved, That the Washington County Medical Society heartily favors the two years preparatory medical course in the State University, and asks the senator of this district to work for its passage.

The next meeting will be held at Schleisingerville, June 27th.

C. BOSSARD, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

(Meeting of March 12, 1907.)

Dr. Ezra R. Larned of Chicago addressed the society on the subject of the *Development of Serum Therapy*, illustrating his remarks with numerous stereoscopic views.

(Meeting of March 26.)

Dr. O. H. Foerster presented a patient with deep and extensive ulceration of the leg and ankle following an X-ray burn which was excessively painful and had proved resistant to the ordinary forms of treatment. Prolonged immersion in hot normal salt solution has been followed by relief of the pain and very satisfactory progress toward healing.

Dr. F. C. Studley presented a paper on *Psychotherapy* dealing with the importance of "suggestion" as a branch of rational therapeutics. He strongly urged its intelligent application in suitable cases of functional nervous disorders and reported illustrative cases.

The paper was discussed by Drs. Dewey, Becker, and Wingate.

Dr. W. H. Neilson reported a case of gangrene of the lung associated with pyo-pneumothorax and endocarditis in which a urethritis may have been the source of infection. He also reported a case of chronic interstitial nephritis, chronic endocarditis and marked arterio-sclerosis in a boy of 11 years. No history of hereditary syphilis or of preceding infection could be obtained.

In the discussion Dr. P. H. McGovern reported a case of arthritis and endocarditis following gonorrhea. Marked septic symptoms were present. During the attack the pulse and ventricular rate fell as low as 26 beats to the minute, while the auricular pulsations were three times as rapid. Recovery is now taking place with injured mitral valves.

Dr. L. F. Jermain reported a case of Landry's paralysis in a boy marked by sudden onset without preceding evidence of infection. On the ninth day signs of severe heart disturbance appeared. The paralysis has cleared up entirely, but a mitral regurgitant murmur persists.

G. A. CARHART, M. D., *Secretary.*

BOOK REVIEWS.

Diseases of the Lungs, by ROBERT H. BABCOCK, M. D., of Chicago; D. Appleton & Co., Cloth $6.00.

This work is a companion volume to that upon Diseases of the Heart and is fully up to the standard set by Dr. Babcock in that splendid work. As a clinician, Babcock, by reason of his blindness, seems to those who have been in personal contact with him, to be endowed with most unusual acute-

ness in diagnosis, and it is but natural to expect that in writing on those diseases most susceptible of study through auscultatory and percutory means he should be able to give to the profession much that is invaluable from his own large and peculiar experience. The chapters relating to the pneumonias and to tubercular affections of the lungs are especially full and in accord with the latest investigations. Mention is not made, however, of the method of Northrup in the treatment of pneumonia by the use of cold fresh air, which has already been shown to be so efficacious and worthy of adoption as the customary regimen.

Concerning the use of tuberculin diagnostically, the author says that while the test may be positive the reaction may not prove the infection to be pulmonary, and that our other means of diagnosis without its aid will always be adequate. Tuberculin as a therapeutic agent in more minute doses than originally recommended by Koch is beginning to establish itself as an undoubtedly eligible and efficacious remedy. The chief difficulty at the present time seems to lie in the proper technic of dilution, rendering its administration almost impossible by the general practitioner in his private cases. The Goetsch, Roemsch, Petruschky, and Wright methods of administration are detailed. The latter, depending on using the injections only when the opsonic power is on the upward curve, is difficult to carry out, but promises to give us a strictly scientific check on the individual under treatment.

Babcock's summary of diagnostic data in incipient cases of phthisis, given under seventeen headings, is particularly comprehensive and valuable and could be followed with much advantage, especially since insistence on earlier diagnosis is the pervalent sentiment among phthisiologists.

The work is undoubtedly the most exhaustive treatise on the subject of pulmonary pathology and therapeutics in the English language; its style is attractive and readable and the illustrations, while not numerous, are excellent. Dr. Babcock has apparently sought to avoid wearisome discussions of unfounded theories and we have but little doubt that physicians in active practice who wish a book of daily reference on the subjects embraced in his work will find here undoubted satisfaction. C. H. S.

Painless Operations. Local Anesthesia with Indifferent Liquids. Psychophysics of Natural and Artificial Sleep. PROF. C. L. SCHLEICH. *Fifth improved and enlarged edition with 33 illustrations in the text. Berlin. Julius Springer. 1906.* (M .6. $1.50.)

The first part of the book is devoted to general narcosis which is considered under two sections: the present stage of inhalation-anesthesia and psychophysics of natural and artificial sleep. After critical remarks on the anesthetics in use, S. urgently recommends his method with three different mixtures of Chloroform, Ether and Ethyl chloride as the mildest and least dangerous, since not a single accident occurred in over 6000 narcoses with them. He devised special tubes containing these mixtures on cotton for therapeutic purposes at the bedside to alleviate pain, and for autonarcosis in accidents and in war. These ought to be kept in factories, police stations, etc. 15 theses for administering narcosis (Chloroform and S.'s mixture), and 6 theses for ether narcosis are given. S. justly complains that no scientific training in applying narcosis is given, and advocates that it be made a com-

pulsory study in the medical colleges. Since very little attention is devoted to narcosis in the text-books of surgery, the exhaustive treatise on the subject by the author will be very welcomé.

Local anesthesia, originated by the author, is dwelt upon in detail, the prescriptions of the older and new solutions are given and the technic minutely described in various operations.

Cocain still occupies the first place. Of all the new substitutes alypin is the most valuable, although of less anesthetizing and no vaso-constricting power. If cocain and alypin are properly combined the doses of each can be diminished without decreasing the anesthetizing effects. S. contends that in 90 per cent. of all cases infiltration anesthesia is able to supplant general anesthesia.

The splendidly gotten up book is of great practical value and ought to be read by every surgeon. C. Z.

Paraffin in Surgery:—A Critical and Clinical Study. By WM. H. LUCKETT, B. S., M. D., and FRANK I. HORN, M. D., Surgery Publishing Co., New York. ($2.00.)

Since the introduction of paraffin into the domain of surgery, much has been written of its indications and contraindications, its accidental effects and dangers. In this monograph it has been the effort of the authors, as stated in its preface, to collate and analyze the voluminous literature, and by a critical study of the results of their own experiments upon cadavers and animals and by their clinical experiences to determine some of the disputed points. They have shown by careful explanation and by cuts, a practical method of using a means of surgical prosthesis which has a legitimate field in surgery. C. H. S.

Injuries of the Eye by Ink Pencils.—ENSLIN (*Zeitschr. f. Augenheilk.*, 1906, XVI, p. 520), reports 3 cases in which dust and pieces of methyl violet of ink pencils had entered the conjunctival sacs. In 2 adults, recovery with normal vision took place, while in a boy, aged 9, diffuse keratitis and ulcer with hypopyon developed. The bacteriological examination was negative, and the ulcer healed with a dense macula, V=6/18.

Although the pieces may cause a mechanical erosion, the chief action of the anilin pencil is chemical, resulting in cauterization or severe chemical, not bacteric, suppuration. This has also been proved by experiments on animals.

It has not been explained why in the majority of cases a cauterization took place, in the minority a suppuration. E. attributes this to the different reactions of the cornea at different ages, since the suppurations always occured in children or youthful individuals. The same difference exists between the corneae of the human adult and of the rabbit. In the rabbit the same quantity of mythyl violet, which produces only a slight conjunctivitis in man, sets up a violent suppuration, ring abscess and panophthalmia.

E. advocates to withhold the anilin pencil from children at school and at home. (C. Zimmermann.)

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ORIGINAL ARTICLES.

IMPRESSIONS CONCERNING SOME IMPORTANT FACTORS CONNECTED WITH APPENDICITIS, ACCRUING FROM A PERSONAL OPERATIVE EXPERIENCE IN OVER ONE THOUSAND CASES.*

BY WILLIAM E. GROUND, M. D.,

MEMBER WESTERN SURGICAL AND GYNECOLOGICAL ASSOCIATION, ETC.

SUPERIOR, WIS.

At first glance it may seem somewhat presumptuous for me to present the subject of appendicitis for discussion before such a representative body of medical men, as the one I now have the honor of addressing.

My excuse for doing so is first, because there is still a considerable mortality and a very great and unnecessary morbidity attending the disease even today, in our best equipped medical centres; and second, because the treatment of spreading peritonitis has lately received a new impetus, the gravity of appendicitis depending upon the degree of peritonitis it initiates; and in the third place when an operator has the experience accruing from the study of a large number of cases, he is in duty bound to present his data to the profession for comparison.

Appendicitis has from my earliest medical career, been a subject of the utmost interest, inasmuch as one of my first cases when I commenced practice was what proved to be a case of appendicitis.

It was in 1888, while spending the summer in the White Moun-

*Read at the meeting of the Duluth-Superior Academy of Medicine, Superior, Wis., March 20, 1907.

tains, at Bartlett, N. H., that I chanced to be called to see a young man, a native of that locality, who had been suffering for several days with what was thought to be inflammation of the bowels. I found that he had been taken suddenly sick two or three nights before, with nausea, pain and vomiting. No physician being available, the family treated him as best they could with domestic remedies, such as aromatic teas by the mouth, rectal injections, and hot fomentations applied to the abdomen. When I saw him he had considerable fever and a tender distended belly. As I remember it now I did not offer any diagnosis other than that originally made by the boy's mother, who had the good quality of mind, so common with the old New England stock; nor did I change the treatment in any essential particular, but the boy was kept in bed until he gradually recovered in about a month. I elicited the fact that he had had two or three similar attacks prior to this one within the last year, although this one was by all odds the most severe and came very near proving fatal. I still have the original notes of the case, showing a pulse of from 120 to 140, and a temperature often up to 104°, with frequent vomiting spells and much pain, relieved by the free use of morphine.

This attack was in May and the boy regained pretty much his usual health, retaining it until in October, when he again came down with another attack, which was much lighter than the previous one, keeping him in bed but ten days. I went back to New York, where I was doing post graduate work during the winter months, returning to New Hampshire in May. During my absence I found my young patient had had two slight attacks. During the summer of 1889, he had one attack. These attacks were regarded finally by his parents as due to errors of diet. He, like most youths, was an easy and greedy feeder. Each sick spell the boy had, according to our present knowledge, was typical appendicitis.

I related the case to Dr. John A. Wyeth, of the Polyclinic, and when I returned to the White Mountains in the spring I was able to give my case a name. I found he had kept on having attacks about every three months, some of which were very severe, others light. In August of 1890, he had another severe attack and developed a violent peritonitis, and when the distension subsided a large fluctuating mass was plainly to be felt in the right iliac fossa. The boy being profoundly septic I recommended that I be allowed to open what I considered an abscess. This was permitted and a large amount of pus was drained away and recovery promptly followed. He had no more

than gotten out of bed and back onto a diet when he had another. I was about to return to New York again for my winter's work and I advised that I take him along and see Dr. Wyeth, as I had talked to him before about the case. This was done and he was taken to the Polyclinic Hospital and an operation decided upon, but while waiting for the arrival of his parents from New Hampshire he had another attack. Dr. Wyeth decided not to operate during the attack but to wait until the inflammation subsided. Accordingly in about two weeks the abdomen was opened and I assisted Dr. Wyeth in doing one of the first half dozen interim appendicectomies on record, i. e., where the interval operation was deliberately planned and executed. This case was reported by Dr. Wyeth to the section on Surgery of the New York Academy of Medicine, at which I was present and I remember distinctly the lively discussion it created. I remember too as vividly as though it were yesterday, the condition of the appendix and surrounding structures presented at the operation. A dense mass of adhesions the like of which I have rarely seen since, was encountered on entering the abdominal cavity. This of course might have been expected as he had had in all 16 attacks and had worn a drainage tube for several weeks, a most potent factor in causing adhesions. The appendix was finally found well over the pelvic brim, liberated and removed and the abdomen closed with drainage. The boy made an excellent recovery.

It was about this time that the medical world was awakening to the subject of appendicitis. Fitz had just given the result of his mature judgment in working out the part the appendix played in the production of pathology in the right side of the abdomen. The paper which is classical, presented the subject of appendicitis far in advance of the time, and so masterly that the essential subject matter remains good even today, with all the vaunted progress. It was about this time too, that the appendix began to receive attention from the surgeon. Lister had only a few years before given surgery a new boost and the time was ripe for surgery to take an active hand; and she did and is still following closely the embryologist, the anatomist, chemist, physiologist and the pathologist. But most of the pathology was dead-house pathology and the conditions found were so badly complicated that the initial lesion was frequently lost sight of. This was notably the case with the appendix, wherein for many years the condition was known as typhlitis and perityphlitis, and it was not until the surgeon got bolder and bolder and operated earlier and earlier, that the initial lesion was found to be almost invariably an infection

of the vermiform appendix. Right here it is very tempting to digress and follow surgery into other fields wherein she has performed similar roles, but I will not yield.

John Homans of Boston, in 1886, opened an appendiceal abscess; in 1887 Sands opened the abdomen and closed an opening in the appendix by suture. In 1888 Treves did a laparotomy for relapsing typhlitis, stripped the appendix of its peritoneal coat and stitched it to the abdominal wall, in hopes it would shrink. The patient recovered but had another attack which kept recurring and during an interval he deliberately removed the appendix, the first interval operation on record.

Within the next year or two Senn of Milwaukee, Hoegh of Minneapolis and Hedra of Texas deliberately did interval operations; then followed closely the case I have alluded to.

I mention this somewhat at length, and while I cannot expect my hearers to take the same interest in the matter that I take, I still thought the information might not be wholly undesirable. Another reason I wished to relate the case, was owing to the fact that our esteemed friend and colleague, Dr. McComb, was present at the operation and it was there I first met the genial doctor.

From the early 90's on, the battle royal has raged over the appendix, and the principles of abdominal surgery have been fought out over this same vestige. Medicine and surgery had their set-tos at nearly every medical meeting. A meeting without a spirited discussion on appendicitis was a tame affair indeed. To one living through this period and watching these discussions and the surgery of the appendix grow and become perfected, as it now well nigh is, it is pleasant to reminisce. I will not attempt to recount what has happened; you know it as well as I. I wish to reiterate the state of mind I am personally in at the present time with regard to the subject of appendicitis, after a personal experience with over one thousand operative cases.

It seems to me that we have enough data at hand and the subject so well understood generally, that the time is ripe to bring the operative treatment up to what may be called ideal, i. e., no mortality (accidents excepted) and one week to ten days in bed.

In the first place I believe that the diagnostic indications are so distinctive that a diagnosis can be made in 99 per cent of the cases within the first few hours of the onset in acute cases, so as to permit a timely operation either before infection has escaped from the appendix, or in case it has, before the surrounding structures have

been involved to an extent sufficient to materially affect the patient's chances of recovery. Of course it must be admitted that there is a very small and ever decreasing percentage of cases where the primary infection is so virulent and the onset so violent that the most timely and well executed operation will be of no avail. I say we can imagine such cases, but that they are of the very rarest occurrence every surgeon can attest. As to the chronic or interval cases: these should all be diagnosticated and operated before an acute exacerbation is allowed to occur. No matter how slight and transitory the attacks, the appendix should be removed in all cases. To illustrate this point: In December, 1906, a young man came into my office saying he had been having, off and on, for the last few months, attacks of pain in the right side, lasting a few hours but leaving the side tender and sore for a day or two and then passing off. These attacks were usually accompanied by nausea but only once did he vomit, and only once did he go to bed and that for only half a day. Examination revealed no tumor, but slight rigidity of the appendiceal region and a marked tenderness on deep pressure. Following my usual custom I advised immediate operation. Before he left the office he decided to go to the hospital Sunday and have his appendix out Monday morning. This was on Friday. Sunday morning about 3, I was called hurriedly to see this young man, who had suddenly developed an excruciating pain in the abdomen about the umbilicus. I found the attack had commenced about mid-night with pain, nausea and vomiting, pain referred to the mid-line above the umbilicus, temperature 102°, pulse 96, abdominal rigidity, tenderness all over the abdomen but most marked in the right side. This was the only typical and by all odds the most pronounced spell he had had. I urged his immediate removal to the hospital, which was done. I operated at about 9 the same morning. On opening the abdomen a creamy fluid first made its appearance with fecal odor, no adhesions but white exudate on coils of bowel lying around the appendix, which was found deep in the abdomen hanging over the brim of the pelvis. It was easily liberated and delivered into the abdominal wound and found to contain a concretion which had caused pressure necrosis, giving rise to an infection atrium, perforation and peritonitis. The appendix was removed and a small wick drain inserted. Those coils of bowel that were exposed and infected were irrigated with a hot salt solution. The general abdominal cavity was not washed nor any attempt at flushing made, but as fast as the purulent fluid appeared at the opening it was mopped away. This boy whose pulse had been 96 and tem-

perature 102° from the time I first saw him in the early morning, at the time of operation had a pulse of 140 and temperature 103°, which fell before the operation was over to 100 and the temperature came down correspondingly. He made a good recovery except that it was delayed by a phlebitis.

Now, it is not the rarity of this case that induced me to take it as a text, but the frequency with which just this sort of thing is met with in appendicitis work. Almost daily we learn of cases where the attending physician tells the patient affected with unmistakable but apparently mild appendicitis, that an operation is not necessary, and takes the responsibility himself for the delays that so often result disastrously. At one time the profession was well nigh unanimous regarding the advisability of immediate operation in all cases of appendicitis. This state of affairs followed closely the "throwing up of the sponge" on the medical side by such men as Tyson, Anders, Stockton and others, and that there was no dependable treatment of appendicitis other than timely removal. Soon, however, this happy state of affairs was disturbed by one of the leading surgeons declaring that by keeping the patient flat on his back and giving nothing by the mouth, relieving the nausea and vomiting by lavage and the tympanites and loaded bowel by colonic irrigation, many cases could be tided over and an operation prevented or postponed to a more opportune time. This so-called Ochsner treatment has thrown the whole appendicitis problem back several years, so far as the general profession is concerned. Undoubtedly next to surgery it is the best course to pursue, but when a competent surgeon is available it has no place. I do not believe the best interests of the patient are conserved by waiting or postponing an operation, no matter what the stage. Operate, for the chances are the condition will be worse, and you have lost the best opportunity that that particular case presented. Of course cases can be so bad that an operation is not advisable, those cases for instance that present a clammy, leaky skin with rapid feeble pulse, with great and painless abdominal distension and obstipation, facies indicative of profound abdominal toxemia. A constipation that cannot be relieved before an operation certainly will not be after.

It is all well enough to know the fine pathology of the appendix, i. e., that there is a catarrhal kind, a perforating kind, a suppurating kind, and an appendicitis obliterans, etc., but who can tell us before the belly is opened which kind we have, and until the non-operating doctors can tell us we will insist on immediate operation. When we can get a nil mortality in interval and non-suppurating cases and a

mortality of two per cent in suppurative cases I think we have a right to make such a demand. In an operative experience of over 1,000 cases my mortality has not been over five per cent and much of that occurred in the early days. During late years it has not been over two per cent, including all kinds of cases as they come. I do not mention this as being exceptional, but these are the results that are being gotten by surgeons all over the country.

The danger from the appendix is not from the organ itself, but from what gets out of it. As long as the infection remains in the appendix no harm is done, and the gravity of the situation is due entirely to the involvement of surrounding structures.

Regarding time for operation. Much has been said about early and late operations and I want to say right here that hours cut no figure and should not be taken as a standard. It is ordinarily believed, and that it is true in the majority of instances I will not attempt to dispute, that time secures adhesions and that the infected field is isolated and circumscribed and that by keeping the peristalsis subdued the infection will be gradually disposed of, or the limiting wall will allow the abscess to be opened at a time when the pus is less virulent and the appendix removed then or at a later date. But there are a considerable number of cases where the perforation is so sudden that nature has had no time to prepare by the agglutination of adjoining coils of bowel, and the infectious material is thrown directly into the abdominal cavity. This may happen in a few hours, or a few days or not at all. I have seen no fewer than half a dozen cases already this year in which the appendix was perforated or gangrenous and the intestinal contents were leaking directly into the peritoneal cavity without let or hindrance, not a sign of adhesions being present to prevent the spread. There is one peculiar thing that I have observed and that I have not seen dwelt upon in the literature, and that is a sharp tendency of the infectious material not to become rapidly distributed to remote portions of the cavity, but to remain limited even in the absence of adhesion barriers. A few years ago I took coloring matter in solution and poured it into the abdominal cavity and tried by stirring with my hands to distribute it over all the bowels, and I found it was with the greatest difficulty that I could stain more than a few coils of bowel. This together with the observation that as soon as the abdomen was opened the fluids tended to run out of the cavity and that during manipulations the intestines had a marked tendency to escape at the opening, led me to ignore

trying to wall off areas of the abdominal cavity with gauze. From intra-abdominal pressure everything movable within the abdomen has a tendency to escape. The truth of this you will see upon reflection. Where gauze can be placed around the field of operation without passing through an infected district, and particularly where it is necessary to keep coils of bowel away from the area of manipulation, gauze walling off may be practiced, but in septic appendicitis where we have to wipe across an infected field to get the gauze in place, I believe it is better practice to mop up the pus as it appears and to remove the appendix. I remove the appendix in every case where it is possible to do so, and that is in 95 per cent of the cases, and my mortality has not been over 2 per cent—as good a showing as those who simply drain and leave it for an interim operation as many operators make a practice of doing.

Nor do I make a practice of flushing after operation, merely washing with a hot salt solution those coils of bowel that have been exposed or come in contact with the infected field. Occasionally where patients come into the hospital after having been transported, and when on opening the abdomen we find a free leak with no limiting adhesions, we try to thoroughly flush with a hot normal salt solution. The idea is to avoid handling and inflicting traumatism especially of the omentum and small bowel. Monks has shown that of all the deleterious influences the viscera are subjected to during an abdominal operation the worst is handling.

Drains are omitted wherever possible. Instead of trying to find an excuse for using a drain, we seek to find an excuse for not using it, for uninjured peritoneum will take care of a lot of infection, besides a drain is a source of infection as well as irritation.

As we know we may have an infective peritonitis without a visable perforation, i. e., the germs may pass through the devitalized wall. The peritoneum when irritated by a small or gradually administered dose of the infective agent, or one of low virulency, protects itself by throwing out a fibrinous exudation, thus glueing together coils of bowel, and limiting the spread of the infection.

In an exhaustive study of the bacteriology of peritonitis by Dudgeon, Sargent and others, it is conclusively shown that peritoneal reaction varies with the virulency of the infecting organism, and its ability to handle the infection depends upon its unharmed condition. In an infection of ordinary virulency the endothelial cell layer of the peritoneum stands between the patient and eternity; that no matter how perfect the surgical technic, we have got to depend very largely

upon these endothelial cells for phagocytic defence. So anything that diminishes the phagocytic activity of these cells, such as rough handling, sponging or misdirected irrigation, opens the vascular channels, and toxins and micro-organisms enter the blood stream, producing often lethal systemic infection.

Experiments by many investigators, as well as clinical experience go to prove that the vital resistance of the patient has much to do with the determination of a peritonitis, but much more important is the local condition as regards resistance, the dosage and virulency of the infecting germ. Halstead found that when the omentum was ligated it was very much more susceptible to infection, that rough handling and the presence of drainage material very much diminished the local resistance. Some conditions on the other hand seem to increase the tolerance to infection. For instance, Treves points out that patients affected with a low form of chronic peritonitis bear operative manipulations more safely than does a virgin peritoneum. The whole peritoneal surface is as great as the skin area and has marked powers of absorption, taking up milk, blood and peptones, and can absorb fluids to the extent of 3 to 8 per cent of the body weight. Absorption of fluids takes place both by the blood and the lymphatic vessels, although different regions vary in this respect. Muscatello's experiments are interesting in this connection. He injected fine carmine granules in suspension into the peritoneal cavity of dogs. When the dog was suspended head down, granules were found in the retrosternal glands, in five to seven minutes. There was no trace in the pelvic and abdominal glands. When the diaphragm was injected, particles were found in the glands of the liver and spleen in one and one-half hours. When the dog was suspended with head up after five and one-half hours no carmine was visible in any gland. Microscopically it was found in the retro-sternal and other intra-thoracic glands, but not at all in the spleen, liver, pancreas, lumbar or aortic glands. He thinks, therefore, that the normal course taken by solid matter in the peritoneal cavity is first through the diaphragm into the thoracic glands, thence into the blood stream, whence it finds its way into the glands in various parts of the body. The current to the diaphragm exists in spite of gravity, though the latter retards it. He thinks the diaphragm is the only part of the peritoneum capable of absorbing solids, the lymph glands in the mediastinum being the collecting centres (Webster). Thus different parts of the peritoneum respond to septic invasion differently; the diaphragmatic or dome portion of the peritoneal lymph sac, as shown by Muscatello, represents the most active phagocytic

field, and as well the power of absorption is here most active, representing in a high degree the large open mouths between the cells, passing at once into the lymph channels. The region of the small intestines is the next in activity, and the pelvic zone is the least active. Based upon these facts is the posture treatment of septic peritonitis of Clark and Fowler. A few years ago Clark conceived the idea that inasmuch as that part of the peritoneum covering the diaphragm was most active in absorption, to place the patient with the head low would allow the infecting germs to gravitate to this portion, be absorbed or destroyed, and thus the peritoneal cavity be rid of them. For just the opposite reason, our lamented Fowler (who recently died of just the condition he had so effectually taught others to cure), recommended that the head and upper abdomen be elevated, contending that in the less active region of the peritoneum with a slower absorption and consequently less general infection, time was given for active phagocytes to bring about what is probably of more importance, the development of anti-toxin and local immunity. Upon whatever theory we reason, the fact remains that the pretty general utilization of the Fowler position has nearly revolutionized the treatment of septic peritonitis. I might say here that I object to the term general peritonitis, for in no case is there more than a comparatively small portion of the peritoneum involved. The bacteriology of the peritoneum is certainly a most fascinating study to-day, because so much new light is being thrown upon the subject by such earnest workers as Hewetson, Dudgeon and Sargent, Palier, Mannaberg and others. They have shown what kind of microorganisms inhabit the peritoneal cavity and how they get there and what they do, thus removing the soot from this heretofore rather obscure subject. Some of these men confined their discussions to the intestinal bacteria, but owing to the close association of the subjects I refer to them in the same connection.

The species of germ likely to be met with in appendicitis varies somewhat, but those most frequently found are the coli bacilli, staphylococcus albus, streptococcus pyogenes and the pneumococcus. But by far the most frequent is the bacillus coli. The severity of the peritonitis is due to the kind of infecting bacteria. For instance, the more severe and fatal types are due to the streptococcus pyogenes or a virulent colon bacillus, and the mildest to the staphylococcus. In fact the latter bacillus may be actually helpful in that it may precede the more virulent form and establish a local leucocytosis and local resistance. (C. J. Bond.) The morphology of the bacillus coli varies so greatly as to lead some observers to regard it as composed of

different organisms. Palier speaks of the nonvirulence of coli bacilli found in the feces of mice fed on bread, and the same is true of the same bacillus obtained from the feces of a suckling infant. He took a two days old agar culture obtained from these sources and injected it into the peritoneal cavity of healthy mice and no effect was produced. He then took a piece of butcher's meat and boiled it for about half an hour; then it was put into a test tube, and too this was added normal gastric juice and left for a few hours. Before the meat was fully digested the gastric juice was poured off and sterile water added. Then there were added a few loops of a fresh culture from the feces of the infant, non-virulent coli bacilli. At the end of three days an agar culture was made from the test tube containing the meat and sterile water. This new culture containing the coli bacilli, was injected into mice, causing death in sixteen hours. The same mice which were not affected from the culture obtained from the infant's feces, died promptly when injected with the culture from the meat-tube. He further found that when the first culture was two weeks old and injected into a mouse it caused death, showing that contrary to most observations on germ growth, the older the cultures the more virulent do they become.

From these observations and others it can reasonably be assumed that a flesh medium enhances the virulence of the colon bacillus and that a vegetable and milk diet prevents virulency, that the older the culture whether it be of vegetable or animal growth, the more virulent it becomes until the medium is exhausted.

Senn made an observation while visiting the hospitals on the east coast of Africa, as to the freedom from appendicitis among the blacks, and the physicians in those institutions informed him that they had never seen a case among them, and he adds that the relaxing effect of the climate, laziness, and a fruit and vegetable diet, seemed to offer the best explanation for this immunity. Of course it is highly probable that there is no one cause of appendicitis, but it is very evident that the condition of the digestive tract affects markedly this vestigeal organ. The fact that appendicitis occurs most frequently in the young and vigorous individuals who take little care of their digestive apparatus and who eat without rhyme or reason, perhaps largely of a meat diet, thus producing a virulent culture of the colon bacillus ready to feast upon the partly devitalized appendiceal wall, rendered so by pressure of fluids that cannot escape or by a concretion.

There can be no question but what the condition of the intestinal tube as regards its bacterial flora affects greatly the type of peritonitis

given rise to, if from whatever cause it is allowed to gain access to the cavity. This is made clear by Metchnikoff, in his recent contribution on the Hygiene of the Alimentary Canal, and Bond dwells on this aspect of the case when he refers to the specific gravity of the feces in different groups of the animal kingdom. He observed in the human species that feces that are highly laden with bacterial growth, would sink when placed in water: on the other hand where the germ growth was light the feces would float if placed in water soon after leaving the alimentary canal.

With reference to the operation itself, I have little to say. In acute suppurative cases I usually make the incision over the center to the suppurating field, so as to get to the middle of the disease without passing through healthy peritoneal cavity. I use the knife only for making the initial skin incision, I cut no muscular fibers, using the muscle splitting of McBurney, or that of Battle, along the border of the right rectus, pushing the muscle toward the median line and going into the abdominal cavity slightly under the edge. This latter is a good incision where the inflammatory mass is well within the abdomen, or for cases with considerable peritonitis and it is thought advisable to flush the abdominal cavity, or where there is a likelihood of having to extend the incision so as to explore or operate in the pelvic and gall bladder regions. In suppurative cases it has been recommended not to use the muscle splitting method, but to cut through the internal oblique and transversalis fibers, a procedure I rarely resort to. There is one thing I have noticed, and that is the liability of infection getting under the aponeurosis of the external oblique and burrowing around to the crest of the ilium. This is liable to occur even where drainage is used, so that I frequently make a stab wound through the skin and aponeurosis at the outer angle of the split opening of the internal oblique and insert a drain. Even in apparently clean cases where the wound is to be closed the placing of this drainage will often prevent wound complications.

Closure of the wound is effected by catgut, first closing the peritoneum and transversalis fascia together, a stitch or two is taken in the internal muscle, and the external with considerable tissue is overlapped and secured by a continuous suture. As the external oblique is mostly aponeurotic at this point, and as the reparative power of this tissue is not great, I think it important not to strip the structure, but to gather with it as much connective tissue as possible. I next bring together the deep layer of the superficial fascia and then continuing with the same strand close the skin by a subcuticular suture.

I lay considerable stress upon gathering up both the deep and superficial layers of the superficial fascia and coaptating them, for no matter how good a skin approximation and union is obtained, a wide scar will present itself a few months later unless these structures are united. I have never tried the rapid transit method of getting the patient out of bed, nor do I require him to lie flat on his back motionless for a week or two. It takes tissues a week or two to heal and about three weeks before they will hold any strain. Of course in the fiber separating method the tissues are laid back the same as they were before and there is no force acting to separate the wound; on the contrary, when the muscle acts the wound has a tendency to close. As a rule I allow my patients to sit up any time after a week that they feel like it. Keeping a patient in bed produces muscle stiffness, phlebitis and lowers blood pressure. C. H. Mayo says that if a patient is laid up one week it takes 48 hours to restore his blood pressure, if two weeks it takes 10 days, and if three weeks it takes a month, and if he is in bed a month or six weeks it will take all winter to get his blood pressure back.

As regards the use of narcotics, I believe they operate for harm and should be used only on the rarest occasions, especially morphine. Morphine, as we all know, masks the symptoms, affords a sense of relief, and often lulls the patient into believing he is better, and he postpones an operation that otherwise would have been done. Dudgeon and Ross claim that morphine inhibits leucocytosis. Bond, one of the thinking surgeons of the times, contends that the paralysing effect of morphine on the intestinal peristalsis allows the accumulation in the bowels of toxic fluids, while the distended bowel interferes with its circulation and the consequent egress of pathogenic organisms into the peritoneal cavity. He has shown that a distended bowel full of liquid feces is prolific of peritonitis through the exalted virulence of the microorganisms. "While the empty bowel with contracted walls well supplied with arterial blood will powerfully resist the egress of organisms, a distended coil full of gas and liquid feces, with walls thinned by distension and dusky with venous stasis, will readily allow their passage into the peritoneum.

THE NON-OPERATIVE TREATMENT OF APPENDICITIS.*

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It is scarcely necessary to dwell on the importance of appendicitis, as nearly every man, woman and child in this, as in all civilized countries, has at least heard of, or in some way had experience with some form of it, and the mere suggestion of the malady in a home strikes terror to the heart of the average layman.

Inflammations of the organ have in all probability existed since the time of the first man, or at least since the time when the lumen of the organ was reduced to its present caliber, assuming that man in descending from a lower form of life was once the proud and happy possessor of an appendix large enough to take care of itself.

There can be no doubt in the mind of the medical man of today that appendicitis has, since time was first measured by man, been mistaken for gastritis, enteritis, colitis and peritonitis, as well as for inflammation of nearly every organ, to use a legal term, "therein about contained."

The first case of perforation of the appendix which was diagnosed and reported, seems to have occurred about 1859, but the blame was then cast upon the cecum. In fact, the belief that these inflammations of the appendix originated in the cecum was not dispelled until the latter part of the last century.

Many surgeons had called attention to inflammations of the organ, but it was not until about 1880 that the trouble was found to start primarily in the appendix.

The fact that the organ has no apparent physiological function in man probably accounts for the little attention that the earlier surgeons were wont to give it, yet we must remember that most of the cases, when open to inspection, were too much inflamed to give any definite idea of where the trouble really began. Prior to the days of asepsis and antisepsis the surgeon had but little chance to know the conditions that might exist in the abdomen of his patient during the course of the disease, while even post mortems were far less common than today.

It is not necessary to seek the oldest physician of today to find one who as a student listened to lectures on typhlitis and peri-

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typhlitis and who never heard the word appendicitis used until after he had left college. Small wonder then that the laity swears the disease is increasing or that we are "appendicitis mad."

The great surgical crusade against the disease began about 1890 and was brought about by the practical work of Fitz, the wonderful and far-reaching results of which can never be over-estimated.

As a rule, we expect to find the appendix at or about McBurney's point, or one-half way from the umbilicus to the anterior superior spinous process of the crest of the right ilium.

Springing from the lower end of the cecum, the normal direction of the organ is said to be inward and backward, but owing to adhesions due to former attacks of inflammation, it may be adherent to any of the organs within reach, the liver, stomach, gall-bladder, uterus, ovary, urinary bladder, colon, et cetera. Of all the neighboring organs and tissues, the appendix is more apt to be adherent to the cecum, the omentum, the ileum or the Fallopian tube.

There are several cases on record in which the appendix has been found on the left side of the median line.

The appendix receives its blood supply from the appendicular artery which is made up from an anastomosis of branches from the superior mesenterie, the right, middle and ileo-colic arteries.

This lone artery follows the free margin of the meso-appendix to its termination, then passes under the peritoneum and thence out to the extremity of the organ, thus furnishing the entire blood supply. It is claimed, however, that in some females there is an anastomosis of the ovarian and appendicular branches, thus giving an additional blood route.

The superior mesenteric plexus of the sympathetic furnishes the nerve supply of the appendix, hence, the pain may at first be referred over the entire abdomen.

Bryant in his discussion of the subject gives the average length of the appendix as 3.1 inches in the female and 3½ inches in the male, while the average diameter is given as ¼ of an inch in the male and a trifle less in the female.

However, it has been found to be 10 inches in length while in other cases it may be abbreviated to one inch.

Its muscular bands are identical with those found in the balance of the alimentary canal, while its mucosa is similar to that of the large intestine with the addition of numerous small patches of lymphatic tissue which look not unlike small Peyer's patches. This lymphatic tissue probably adds to the liability of secondary infection of the

appendix, and being of small caliber and closed at one end with but one artery to furnish its blood supply, it has but a weak defense against the infection which it invites.

Attacks following indigestion and over-eating are not uncommon and are probably brought about by conditions which are the result of previous inflammation of the appendix, *viz*: first, retardation of gas and fecal matter due to adhesions about the appendix at the ileo-cecal valve, thus interfering with the action of the ileum or cecum; second, those cases caused by accumulation of gas or fecal matter at or within the appendix due to a lessening of the lumen of the organ, the result of previous ulceration of the mucosa with the consequent cicatrices.

Thus, when we find a patient with a history of colicky pains and chronic indigestion, it is well to look for a chronic appendicitis.

Some of the later authors claim that the disease is quite as common in female as in male children, while there can be no doubt that it is often mistaken for right pyosalpinx or some inflammation of the ovary in women.

Foreign bodies play a rather unimportant part in causing appendiceal attacks regardless of the "grape seed" theory of the laity.

It is far more often due to fecal concretions; however, pins and pin-worms, seeds of small fruits, chewing gum, hair and other substances have been found as the cause or at least as the center of an irritating enterolith.

Fecal concretions may, and often do, act as a valve to the appendix, thus shutting off the drainage when the lumen of the organ is otherwise plenty large enough.

These enteroliths usually form within the appendix and are frequently, in fact, generally, made up of the fecal matter surrounded by layers of the different salts.

Containing many infectious organisms these concretions often cause thrombosis of the appendicular artery with consequent gangrene of the part, to say nothing of the ulcers which they may cause by direct irritation.

The most frequent predisposing causes of appendicitis are, in all probability, *constipation, over-eating,* poor mastication, diarrhea or anything tending to irritate the mucosa of the intestinal tract.

Rarely, if ever, is there a complete recovery from an attack of appendicitis, without an operation, as the whole mucous membrane of the organ would have to be obliterated, and even then the cicatrix would be liable to farther infection.

No matter what the predisposing cause may be, the exciting cause is, without doubt, always infectious. The colon bacillus is often present, but is, of course, harmless unless there be an abrasion of the mucosa. Of other pathogenic bacteria we may find staphylococcus pyogenes aureus and albus, or streptococcus pyogenes or even actinomycosis, the bacillus of tuberculosis, the bacillus of Eberth or any germ capable of causing inflammation elsewhere in the digestive tract.

Many classifications of the disease have been made of which that of Murphy is one of the best. It is as follows:

1st. Simple catarrhal appendicitis—no symptoms except tenderness.

2nd. Ulceration of mucosa *without* perforation (sub-divided below).

(a) Atrophy due to pressure or ulceration from fecal concretions.
(b) Ulceration with pus formation.
(c) Typhoid ulcers.
(d) Tubercular ulcers.

3rd. Ulceration with perforation.

4th. Gangrene of mucosa due to mechanical compression by foreign bodies, fluids, or by infection of the wall. This may be, (a) local, (b) general.

5th. Complete gangrene by compression of base by infection or by contortion. This may be (a) local, (b) general.

6th. Infection of the peritoneal cavity.

(a) Without perforation—local or general.
(b) With perforation—local or general.

7th. Peritonitis.

(a) Local peritonitis without adhesions.
(b) Circumscribed abscess.
(c) General peritonitis.

The four chief symptoms of appendicitis are pain, tenderness, nausea and vomiting, and rigidity of the muscles over the appendix, while other symptoms are fever and rapid pulse. However, too much dependence must not be placed on the last named symptoms, even when favorable, as a very serious condition may exist with the temperature but slightly above normal, while the warning of the rapid pulse may come too late.

Tympanites may be present from the beginning if there be food in the stomach and bowels. Irritability of the bladder may be a symptom as the appendix may be adherent to the bladder or its contiguous tissues.

Other symptoms are rigidity of the abdomen, pinched and anxious expression of the face, costal respiration, and flexion of the

right thigh, while the chronic form is often associated with chronic indigestion and constipation.

Appendicitis may be and often is mistaken for gastric ulcer, gastritis, gallstone colic, peritonitis (which has come from a pyo-salpinx) extra-uterine pregnancy, renal colic, perforating ulcer, intussusception, strangulated hernia and other forms of intestinal obstruction, inflammation of the bladder, inflammation of the right ovary, to say nothing of intestinal indigestion and the reliable old-fashioned "belly-ache."

In the writer's own personal case an attack of ptomaine poisoning caused symptoms of appendicitis for a time.

From gastric ulcer or gastritis we may usually differentiate by the location of the tenderness if not by the previous history, while affections of the liver and bile ducts usually cause a pain in the shoulder or give a history of previous soreness in the hepatic region.

Affections of the ovary or Fallopian tube generally show symptoms in the pelvis first, although these tubal troubles may begin in the appendix and then extend to the tube or ovary and be mistaken the whole time for a pyo-salpinx.

Bogginess in the cul-de-sac of Douglas is usually present in extra-uterine pregnancy, while there is generally a history of at least one menstruation missed.

In renal colic the pain is generally pathognomonic, shooting from the kidney to the bladder, while there is apt to be blood in the urine.

Volvulus, or twisting of the bowels, is generally a result of a blow or fall.

Intussusception occurs most often in children under six years of age, yet I have had one case which occurred in an adult who had had his appendix removed a year or two previously. This case gave typical symptoms of appendicitis, and not until I was satisfied that his appendix was really in a bottle, did I diagnose the case as intussusception, and on the operating table next day 12 inches of his bowel was found invaginated. The invagination occurred at the ileo-cecal junction thus including the old stump.

This man told me that he had suffered 18 attacks of appendicitis before the disease was diagnosed, having been treated for everything from neuralgia of the stomach to inflammation of the bladder.

Other obstructions of the bowels may follow abdominal operations as a result of adhesive bands which may form from suturing

the peritoneum. However, the history of the previous operation may aid somewhat in the diagnosis.

We will not in this paper dwell at length upon the history, symptoms or diagnosis of inflammations of the vermiform appendix and of its contiguous tissues, which inflammations we now believe *begin* in the appendix.

It was not until recently, however, that medical authors ceased to speak of typhlitis and peri-typhlitis as distinct, primary, pathological conditions.

The field is so large and the writer's experience so limited, that we will take up the subject but briefly, dealing at the same time with that phase of it which I believe will most benefit us as general practioners and thereby tend toward the best possible results for our appendicitis patients.

It is my desire to call attention to those cases which under certain unfavorable conditions due to location, prejudice or ignorance cannot be brought to an immediate operation, as well as to mention those cases which have been neglected until immediate operation is either unwise or impossible.

In fact, it is the diversity of opinion which exists regarding the treatment of these inoperable cases, which led to my attempting a paper on this subject.

Every general practitioner, especially in the smaller country towns, is often called to attend a case of easily recognized appendicitis of some form only to find that it is either impossible or at least impracticable to operate at the time or place. This condition of affairs may be due to one or more of several reasons, to-wit:

1st. The case may be such that the physician himself may not see fit to undertake the operation while a competent surgeon may not be available within a reasonable time.

2nd. The patient may, as he often does, refuse to submit to an operation or the family may not consent to it at the time.

3rd. The patient's condition may be such that the surgical shock would prove too severe, or if an abscess has formed sufficient time may not have elapsed for the formation of walls of adhesion.

4th. Decidedly unsanitary surroundings or lack of nurse or assistant may make it extremely hazardous to open the abdomen.

5th. The consulting physician, if there be one called, may not agree with the diagnosis or may object to an operation at the time.

Given a severe inflammation of the appendix vermiformis, I believe the safe and sure remedy to be the knife, but in the event of

one or more of the conditions just mentioned, it is absolutely necessary that we have some well formed plan of treatment to prevent the terrible death rate which prevailed previous to the recognition and diagnosis of appendicitis, or during the reign of that misnomer "inflammation of the bowels."

It is an acknowledged fact that operations upon the inflamed appendix after the third day, even in the hands of experienced surgeons, are apt to prove fatal in the majority of cases, and it must be admitted that many of these patients, if treated carefully in a non-operative manner, may and often do live to entertain a second, third, fourth or many more subsequent attacks and are thus given the golden opportunity of a radical operation, the dangers of which are minimized.

The mortality following operations done during the quiescent period or during the first 24 to 36 hours of inflammation, is very low, I believe it is estimated now at about one per cent.

How then shall we best treat our appendicitis patients to carry them through the danger zone to a period of comparative safety?

The treatment which was most used, prior to the days of asepsis and antisepsis, was the opium treatment which was initiated by Volz about 1843.

This plan of treatment gave results which at that time were considered good. However, it was later supplanted to some extent by the so-called saline treatment.

While the giving of saline cathartics may have given some good results in certain conditions (which can not be diagnosed beforehand), where free drainage was needed, I do not believe the practice can be too strongly condemned as it causes marked and persistent peristalsis of the whole intestinal tract, thereby disturbing the relations of appendix and omentum, which must necessarily prevent the quickest possible formation of adhesions, or tend to break up such adhesions as may have already formed.

This, of course, can only enhance the danger of a general peritonitis, from which there is but little hope of recovery.

It must be said to the credit of the opium treatment, that it tends to aid in the process of adhesion formation, at the same time rendering the patient comfortable. But on the other hand, it may and often does prove detrimental by so masking the symptoms as to make the patient's condition appear less serious that it really is.

Again, if there be any doubt as to the diagnosis, the opiate may so cover up the symptoms as to lead the physician astray until it is too late for any treatment to avail.

The best non-operative treatment of appendicitis must be one which, first, relieves the pain, stops the vomit, puts the stomach and bowels at absolute rest, at the same time not deadening the sensibilities of the patient nor hiding the symptoms from the medical attendant.

When called to a case which I have reason to believe is or might be appendicitis, it is my custom to immediately give the patient an enema of soap suds, to which may be added a small amount of glycerine or salts if there be marked constipation.

These enemas are repeated at intervals until the lower bowel is entirely free from fecal matter.

This procedure is based upon *my belief that a large majority of case of appendicitis, of all forms, are due to constipation, could they be traced clear back to their origin.*

It is remarkable, to say the least, how many cases may be relieved by enemas provided the case be seen early, and before a cathartic has been given.

As a local application for the relief of the pain, I believe the old fashioned turpentine stupe to be as serviceable as any.

Many drugs have been given to prevent the formation and promote the expulsion of gas, but if the case be seen rather early the amount of gas may usually be lessened by washing out the stomach and by stopping all food by the mouth. Previous to the publication of Ochsner's concise little work on the subject, it was my custom to allow the patient small amounts of peptonized milk or albumen water, at the same time giving him enough water to satisfy his thirst, but I find that my results are much better when all food and drink by the mouth are withheld.

Briefly stated, Dr. Oschner's treatment, which I believe to be the best non-operative treatment ever advised, is as follows:

The patient is put in bed and either hot applications or ice applied over the abdomen; the ice is chosen if the case be seen early while the hot fomentations are used if it be farther advanced.

Dr. Ochsner recommends leeches over McBurneys point, stating that the relief is sometimes remarkable.

If the patient is nauseated and vomits, the stomach should be carefully washed by means of a stomach tube and all food and drink by the mouth strictly withheld to prevent any farther peristalsis as well as to lessen the formation of gas.

If nausea persists the pharynx should be sprayed with a 2 per cent. solution of cocain.

After a reasonable length of time—if the stomach and bowels are

at absolute rest—the patient is allowed small sips of water, but if nausea and vomiting continue all buccal feeding must be strictly forbidden.

This treatment usually causes a marked improvement in the case, and after a time, if the patient complains of hunger, he should be given a nutrient enema of peptonized milk and egg or of predigested food.

From ½ ounce to 1 ounce of any of the reliable predigested foods in about 4 ounces of normal salt solution makes a very nourishing enema, while I have found the normal salt solution of great value even when given alone.

These food enemas should be repeated every 3 to 6 hours.

It is the writer's custom to first wash out the bowel with soap suds to remove any fecal matter, or if the bowel is already fairly clean, I use an enema of normal salt solution, then the nutrient enema is given through a rectal tube which is passed into the bowel about 6 to 8 inches.

The food must be given slowly to prevent the bowel from throwing it out, while great care must be used to prevent any injury to the mucosa.

While I have fed some of these patients per rectum for a period of 8 to 10 days, Ochsner states that they may be fed in this manner for 3 to 4 weeks without any discomfort though it is rarely necessary to continue rectal feeding for so long a period.

It is imperative that no food or drink whatever be given by the mouth while the acute symptoms are present, if any results are to be obtained from this plan of treatment, and it is necessary to have a competent nurse in constant attendance to guard and protect the patient from the "would-be-wise" members of the family and neighborhood.

Rectal feeding should be kept up every 3 to 6 hours until all acute symptoms have abated.

Personally, I have found enemas of normal salt solution beneficial in relieving hunger and thirst, when given in conjunction with the other rectal food.

Briefly stated, I find the Ochsner method together with careful and thorough washing out of the lower bowel, to give the best results, but the physician must have faith in his treatment, and must have a nurse who will do what is ordered and nothing more, and at the same time protect the patient from his anxious friends and neighbors.

MEDICAL ADVERTISING.*

BY GEO. MARTIN, M. D.,

BALDWIN, WIS.

In many traditions, customs and peculiar relations to the public, the medical profession differs from all other learned professions. This is especially true in the realm of advertising. Medicine, as taught by the most illustrious instructors of the past and present, men whose devotion to principle, whose knowledge of, and respect for, the honored history and brilliant achievements which come down to us as a glorious heritage, tell us with surprising unanimity that all reputable medical men, in their relation to the public and to each other, should stand for and exemplify a far higher standard of conduct than is expected of other professional men.

It has generally been conceded that the publishing, in the lay press, of anything farther than a professional card, to let the public know that you are a doctor, and where you may be found, and that you desire to limit your practice to certain fields of medicine or surgery, partakes of the nature of advertising. As a rule, every mention of a doctor's doings in the society items of a newspaper has the effect, and is often intended as an advertisement, pure and simple. I need occupy but little of your time in discussing the reason why this is true. The respect which in all ages has been freely accorded the learning and erudition which is acquired only by prolonged study and scientific research, in our profession, has warranted and encouraged this high and advanced position. Why should medical men, whose lives are supposed to be devoted to the consideration of the highly complex theories of human ailments, and the profound reasoning by which their practically successful management is deduced, stoop to the base commercialism which too often prompts men to enter the arena of unscrupulous and degrading competition? Why should every conception of high-toned professional conduct be smothered in a mad scramble for dollars by means of a cheap notoriety? Why stifle every exalted impulse, which should prompt every physician to contribute his full share to the advancement of scientific medicine, to engage in a belittling and debasing contest for the frequently untenable position in the evanescent lime-light of popular

*Read before the St. Croix County Medical Society, Hudson, December 17, 1906. At this meeting there were present by invitation members of the Pierce, Dunn and Polk County Societies.

favor, by resorting to the unprofessional trick of surreptitious advertising? I refer, of course, not to the travelling doctor who visits many places, more or less regularly, and whose coming is heralded in the local papers by printed columns of medical "rot," and whose crude work and transparent methods deceive only the ignorant who deserve our pity rather than our contempt. But I would like to direct your attention to the most contemptible of all medical advertisers, who uses the press in an attempt to keep himself before the public, by publishing, causing or permitting to be published—which for our purpose is simply a distinction without a difference—his professional doings, hoping and expecting to gain, by these methods of surreptitious advertising, exactly what the travelling fellow contracts and pays for, in a fair and square deal with the newspaper man. Not content to rely upon good work faithfully done, as a means of spreading his fame as a practitioner, he allows his haste to make a brilliant professional debut, to so influence his conduct that disreputable methods present a very inviting field. He commonly uses the local paper, but occasionally sends to the paper of a near-by city accounts of his prowess, in professional or other lines. He never fails to call the attention of newspaper readers to the fact that Dr. "Up-to-date" is exceedingly gratified at the recovery of a supposed incurable patient, under his skillful and experienced management. In fact, he crowds to the very limit this method of advertising, which he thinks will escape the discipline of his county society, but poses constantly as the soul of professional honor.

In the large cities, where competition is still more keen, the most difficult problem which confronts the reputable part of the profession is, How to get along with, or manage the disreputable contingent, which is constantly engaged in any and all sorts of professional tricks to secure patronage regardless of professional honor or decency.

I notice that many county societies in all parts of the country have passed resolutions obliging every member to explain before the society the publication of cases and professional work. The laity need not be expected to understand all this, but a campaign of education toward which all can contribute something, can at least help to mitigate some of the evils of which we so justly complain. Should not the best medical men who have "won their spurs" in the field, stand together in the interests of clean, professional methods, and sternly frown down every attempt to lower the high standard which has characterized the behavior of those whom the profession has delighted to honor?

REMARKS ON SURGERY OF THE NASO-PHARYNGEAL STRUCTURES.*

BY M. IVERSON, A. M., M. D.,

STOUGHTON, WIS.

Supposing the anatomy of the nose and its accessory sinuses to be known, I desire to call attention only to certain points in the anatomy of the inferior turbinal. This is a more or less shell-like body lying along the inferior part of the exterior wall of the nose. It has three processes. In front is the lacrimal process, which is attached to the descending process of the lacrimal bone, and assists in the formation of the lacrimal canal. Just back of this is the ethmoid process, which unites with the uncinate process of the ethmoid bone; while from the middle of its outer surface there is an irregular plate of bone, called the maxillary process, which assists largely in the closure of the opening between the nose and the antrum of Highmore. The main portion of the turbinal is bent longitudinally upon itself and may be described as having anteriorly a head, posteriorly a tail-bulb, enclosing between them the expanded body,—all being covered with mucous membrane containing a rich supply of erectile tissue. The blood supply of the inferior turbinals is derived from the arteria lateralis narium—in part from spheno-palatine branches of the internal maxillary, anastomosing with small arteries from the same origin and with the ascending palatine artery, and the arteria lateralis narium ant. from the external maxillary.

As the vessels of the turbinals pass more or less through the substance of the bone, they cannot contract so well, but may remain gaping when cut in this locality.

Besides possessing the special sense of olfaction, which is located in the upper part of the nasal fossa, it is the function of the nose to warm and moisten the inspired air, and to remove from it dust and infective material. The nasal mucous membrane, moreover, by reason of its rich blood supply, and moist epithlial covering, absorbs from the inspired air a considerable amount of oxygen of use for the local tissues.

The most common affection of the nasal structure is catarrh in some one of its various forms. What is the cause of catarrh? Most

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likely a congestion that arises from infection and from sudden changes of climate, as from cold to heat, or from a moist atmosphere to a dry one. The sudden atmospheric changes are frequent in the United States, which explains the wide prevalence of catarrh in this country.

The congestion causes obstructions of the nose, faulty secretion, poor drainage and subnormal evaporation. From these conditions there result local waterlogging, infiltration and defective oxygenation of the tissues. These changes, although present more or less throughout the entire nasal fossa, are more marked in the lower turbinals than elsewhere.

In the recumbent position it is noticed that the turbinals on the under side become swollen. This will alternate with swelling on the opposite side. This acute swelling may be the cause in children of their nocturnal terrors, from a sense of suffocation. This frequent one-sided pressure becomes a factor also in producing deflection of the septum, possibly also caused by trauma in infancy.

The turbinals, when swollen, work with the tonsils and the adenoids of the pharynx, as a circulus vitiosus, causing mouth-breathing and drying out of the fauces. In this way acute and chronic pharyngitis, tonsillitis, tubal catarrh, deafness, asthma, hay fever, etc., may result. Anatomical alterations will develop, as a narrow, high-arched palate caused by absence of uniformity in the meeting of the upper and lower jaws. It is a fact that the jaws and teeth will otherwise stop growing as soon as they strike. The patients become "out-biters." The upper jaw curves in, the lower jaw drops and grows outward (le genage). Owing to the lack of the physiologic stimulation of breathing, the nostrils collapse and the nose is observed to be small and narrow, and often short. This condition may be called the "catarrh face."

The etiology of spurs is obscure, but it is possible that they are caused by the constant irritation of pus that at some time in the course may have lain along the junction of a swollen turbinal with the septum. Polyps, caused by irritation from infected pus and defective evaporation, may be present. However, all these pathological conditions act as stated before, as a "circulus vitiosus," one aggravating the other until, here, as after all chronic inflammations, contraction of the connective tissue eventually occurs which restores the patency of the nose, and thereby saves what is left to be saved. This, Nature's slow way of curing, should be noted. The results of all this are manifold and various.

The patient comes to the office presenting a variety of symptoms, as headache, fever, poor development, languor, mouth breathing, asthma, pulmonary troubles, fetid breath, night crying, bed-wetting, snoring, tinnitus, or deafness. In many instances, these symptoms are thought to be caused by one of the factors only, say by the tonsils. The attempt merely to relieve any of these symptoms is unsatisfactory, and generally unsuccessful. We must explain the condition to the patient, and get his consent to correct the causative conditions, or at least to restore normal ventilation to the nose. This having been done, any symptoms remaining may be treated by that specialist in whose province it naturally falls. It is sometimes necessary to produce a condition of over-ventilation, in order to overcome the results of the existing under-ventilation. Ventilation is the important thing, and is to the nose what drainage is to other parts of the system affected by disease.

The patients may be of any age, but before the age of six the turbinals are rarely or seldom sufficiently developed to be a factor, and we will usually have to look for the original cause, the prevention of drainage by the presence of adenoid vegetations or in large tonsils. When found, these should be removed, thereby restoring natural freedom of respiration. This is curative and at the same time prevents the development of pathologic conditions in the nose. After the age of ten the adenoid structures begin to retrogade spontaneously and usually disappear at the age of fifteen. From this age on, hypertrophic conditions of the turbinals and deflection of the septum assume prominence. Attention is also called to the fact that if the functions of the nose are interfered with from the time of second dentition, the characteristic face, the expression of mouth breathing, will be in evidence.

As to treatment, alkaline sprays, gargles, salves and the like are little more than palliative. Operative treatment is of prime importance. Electric cautery is mentioned only to be condemned. It leaves the bone and destroys only the soft structures, the result being that a scar, devoid of glandular elements is formed which becomes covered with crusts, and produces a sensation of dryness very annoying to the patient. Caustics are even worse, since you cannot control the extent of their injurious action upon the mucous membrane. The dental burr is unsurgical, as it tears up the tissues and opens the way to infection.

For operations on the turbinals the most satisfactory instruments are those which cut away the bone proportionate with the soft tissues.

Snares and curettes are therefore ineffectual. The best instruments are the cutting ones like scissors and saws, the first for partial and the second for complete removal. The saw is, however, open to the objection of leaving a raw wound which heals slowly. Cutting forceps are good. There is one instrument which I wish to particularly recommend for operation on the lower turbinal, believing that it has not attained the position it deserves. This is the Carmal-Jones spoke shave. Briefly it may be described as a small knife blade attached to both ends of the fork tips of a long handle, the whole instrument being constructed of one continuous metal piece. With a little practice, it can be made to cut its way out of the tissues either straight or curved, as you desire. The work can be done easily and quickly under cocaine and suprarenal extract, without pain and with little or no loss of blood. The bone-substance of the turbinal is not very solid and cuts easily, and yet it soon spoils the edge, and this must then be reset or extensive tearing of the mucous membrane may occur, which never happens if the edge is sharp. Some operators may have discarded the instrument from this being misunderstood.

The posterior bulbous ends of the turbinals, often the most offending part, are difficult to see and therefore difficult to remove with any other instrument than the spoke shave, but with the latter you may easily engage the swollen posterior end of the turbinals which may be removed with one stroke. The resulting scar, on account of its longitudinal direction, will tend to keep open the Eustachian tubes, a matter of considerable importance in the case of catarrhal deafness due to swollen tissues. While a septum should be resected, hypoderm and spurs likewise, this is of no value in case of the hypotrophic turbinals as there is always a great surplus of mucous membrane on them and the wound is so closely pulled together by the granulations that the scar disappears. If atrophic conditions already exist, it is naturally too late for this method of treatment. As far as deafness from tumefactions and hypertrophic catarrh is concerned, I have seen better results from operations of this kind than from weeks and weeks of any other treatment. The spoke shave is also a good instrument for the removal of spurs and redundant tissues upon the septum unless you prefer to remove them subperiosteally with cutting forceps or Ballenger's swivel knife; biting forceps are preferable for operations on the upper turbinals. A reasonable amount of trimming of the last mentioned, so that all mucous membranes are left freely exposed will increase the evaporation, oxidation and drainage, and is useful to restore normal conditions in the nasal accessory sinuses or to give

room for operations on them or for correction of deflected septum, operations that lack of time forbids me to speak of further in this paper.

Anesthesia may be general or local. The addition of adrenalin is important for stopping hemorrhage and giving you a clear field in which to work. If secondary adrenalin hemorrhage is alarming, you may use a Belocque's canula or a violin string with an eye in the end. By this means a thread may be drawn through the nose into the mouth; a big tampon is fastened on the end which may be drawn up behind the uvula into the naso-pharynx. To tampon by way of the nose in secondary bleeding is impossible because of the pain; in a bleeding nose you cannot directly restore local anesthesia. You may proceed according to the method recommended by Mulford which is as follows:

"The subcutaneous injection of adrenalin extract into the arterial supply at the nearest accessible point to the bleeding area. The injection may be made directly into the artery supplying the parts, or it may be thrown into the tissue closely adjacent to the artery. This certainly is simple, but the result is marvellous. The ingoing arterial current sweeps the solution directly into the leaking area, all the vessels of the part are constrained, and almost at once the hemorrhage ceases." Now you can anesthetise and tampon. It is, however, best to tampon the nasal cavity immediately after the operation with rolls of iodoform gauze, 3½ inches long and ½ inch wide, well soaked in vaseline. You knit a silk thread to the end to be inserted first, and push in the head of the tampon until you touch the pharyngeal walls, the thread hanging under the tampon so that it will bend the tampon's head in under when pulled upon. Now draw the thread tight and tie it around the ear so as to prevent the tampon from slipping down into the fauces. Two or three more are laid in, the one on top of the other, and pressed hard down against the os palatinum. Remove on the morning of the fourth day, layer by layer. It may then bleed a few drops, but ceases of itself. In the 60 turbinectomies which I have done in three years, I have seen only one which required the posterior tampon. I removed all the tampons, used Belocque's canula, and then plugged the anterior nostril. This case might have turned out seriously, if either doctor or patient had lost his nerve. It happened before Mulford's method of hypodermic injection of adrenalin solution had been proposed. Now there is one little trick which I wish to mention. When cut tissues are smeared with a concentrated solution of trichloracetic acid, the albumin is coagulated, and a white film of

acid albumin forms, an antiseptic medium in which bacteria will not develop, and which adheres strongly to the tissues. This closes up the opening of the blood vessels, and tends to prevent the secondary hemorrhage which occurs after the reaction of adrenalin. It prevents also secondary swellings and pain by preventing infection. This method has not come into general use. It was recommended by Gleitsman in 1892, for cauterized wounds, and later endorsed by Würdemann. I use it also for cut wounds—in the nose, on the tonsils, and in work in the rectum and anus, touching the sutured wounds therewith. It might be useful also in operations on the cervix uteri, or the vagina where little wounds left open may prove of serious consequences.

The turbinectomy case in which the bleeding occurred was one in which I omitted this practice. Much other work may be required upon the nasal cavities besides turbinectomies, as I have said already. I will mention that tonsils are removed flat, deep enough to lay open all retensions, and the wound painted with trichloracetic acid. The resulting flat scar is less liable to infection, and there is no reason for exposing the patient to dangerous hemorrhage by total removal of the tonsil, except in a case suspected of malignant or tuberculous disease. We do not know if the tonsils may not have some internal or antitoxin-making functions, the crypts serving the purpose of culture tubes, from where the respective toxins are slowly resorbed. Snare operations leave a crushed, easily infected wound. I have removed a good many tonsils for the relief of recurrent quinsy, thereby preventing further attacks. I have had no trouble with hemorrhage from adenoid operations, and in such cases have dispensed with the acid, and only used a little adrenalin rubbed in a few minutes before the operation.

(Should Mulford's method be tried here injection would have to be made in the posterior column, the arcus palato-pharyngeus, in the field of the arteria palatinus ascendens; it would require a long needle on a hypodermic syringe.)

After a thorough opening up of the naso-pharyngeal space, my patients have sometimes been troubled by vibrations in the nose when speaking. I have followed these cases up and have found that this symptom disappears after awhile as soon as the muscles of the pharynx have returned to normal. It is naturally supposed that the nose might become too dry after being made so free, but as soon as the mucous membrane regains its natural condition, it remains moist and warm by secretion and local oxidation, but cautery produced scars

or an absolute atrophy attended with crust formations cannot return to normal anyhow.

CASE HISTORIES.

No. 1. Miss D. (Madison, Wis.), 21 years old; had been rather deaf and sought medical aid in Madison, Milwaukee and Chicago without success. Has had classical treatment. Turbinates had been repeatedly cauterized with chromic acid and electro-cautery. Personal examination showed posterior part to be tumefied and enlarged. I removed them together with the affected bones of the turbinals and so relieved her both of the interference with ventilation and of the crusting scars. I treated her no further. Three months afterward, her hearing was easily demonstrated to be improved.

No. 2. Miss B. P. (Stoughton, Wis.), 6 years old, was operated upon for hypertrophied tonsils. Examination by myself showed her to be ill nourished, and subject to tonsillitis several times a year. Tonsils cut down and adenoid vegetation removed. Never had tonsillitis thereafter and six months later was well nourished. Three years later was finely built, robust child, with healthy complexion and appearance. I believe this to be a good illustration in favor of the removal of obstructions to the air passages.

No. 3. A. H. (Dunn, Dane Co.), a boy 14 years of age, brought to me suffering with constant, hacking cough. Ill nourished and pale. Chicken breast, dry râles in apex of lungs; mouth breather. I made a diagnosis of pulmonary tuberculosis, with unfavorable prognosis. Treatment, Griffith's comp. mixture, and turbinectomy. At present writing, this patient is 19 years of age, with fairly well developed thorax, with free nasal breathing.

At this point I wish to call attention to the following question: "What benefit can be derived from open air treatment, when the patient suffers from a narrow, or closed nose?"

No. 4. P. N. (Edgerton, Wis.), cured of hay asthma by bilateral turbinectomy and curettement of several hypertrophic places on septum and medium turbinal. Had before used numberless asthma cures without lasting effect. Has had no return for three years. When radical operations entirely corrected the mechanical defect, I have always found that hay asthma patients were entirely relieved of symptoms.

No. 5. Two little boys of O. C. L. (Stoughton, Wis.) The one 6 years old brought to my office for deafness, was curetted for adenoid vegetations—the only fault that could be found. Regained his hearing completely in less than four months. Has had no other treatment. The other, 3 years old, was lately brought to me for mouth-breathing and running nose; as the first son had had these symptoms for awhile before becoming deaf, the parents wanted to have him curetted so as to prevent him from becoming deaf, rather than to wait. I can only say that it might have been great if other parents could get a chance to think the same way—and here comes in the duty of the general practitioner.

In conclusion, I would recommend cutting operations for the

purpose of securing free ventilation of the nose and pharynx, and furthermore that of the turbinals, hard and soft structures shall be removed in proportion as they are found. And thirdly, that we make only clean cut wounds. Fourth, a sealing and covering of the cut tissues with a film of trichloracetic acid albumin. Fifth, in case of turbinectomies, a prompt use of the tampon in order to forestall arterial bleeding. Sixth, that ventilation is of service for the relief of chronic deafness of a catarrhal nature, if the structures are not already degenerated or atrophied, and should be considered as a very important part of the regular treatment. Seventh, that when ventilation is the essential for cure, it is preferable to have it a little freer than would have been necessary for the same person under normal conditions or at least that all mucous membranes are free from contact with each other.

Some cases of pulmonary tuberculosis, otherwise hopeless, will recover if this treatment be added to the regular open air treatment, rest, and feeding. In short, securing free ventilation of the naso-pharyngeal structures has a far-reaching influence.

Discussion.

DR. H. V. WURDEMANN of Milwaukee:—This is really a very interesting and valuable paper, coming as it does from a general practitioner, who is in accord with the specialist in some respects. I am going briefly over some parts of his paper to show you the causes of nasal obstruction and its influence upon the general health of the individual.

First comes congestion from cold, next follows hypertrophy, later on in life comes sclerosis and withering. From those we get the various effects in the head; and first, obstruction, and then a free but inefficiently functionating nose. What is the office of the nose? First, and primarily, it is to breathe with, to take sufficient air into the lungs. Breathing through the mouth only does not get as much air into the lungs as breathing through the nose. The office of the nose is to warm, to moisten and to purify the air, aside from its office as an organ of smell. Smelling is the smallest part of its function. Some of the lower animals, as for instance the ant, smell without a nose.

Other causes are found in the case of children with lymphoid diathesis, causing obstruction in the naso-pharynx, hypertrophy of the pharyngeal tonsil, with, as a rule, hypertrophy of the faucial tonsil.

Now are these obstructions to be cured by any other means than surgical methods? No, a thousand times no.

The faucial tonsil, if it is large enough to be seen, after the age of three or four years, is a diseased structure, as any of the tonsils are, the lingual, the faucial or the pharyngeal, as much an obstacle to the passage of air as a tree that has fallen across a country road is an obstruction to vehicles. And what do you do with the fallen tree? Remove it! That is what you should do with these obstructions.

Congestion in the nose produces hypertrophy, and then we get another

condition similar to that of a gutter in a rainy day in a city street, where the mud accumulates along the gutter, until finally we get a mound which forms an obstruction which must be cleared away. So in the case of the nose, the slight hypertrophy produces irritation or ulceration, causing hypertrophy of the tissues of the septum, spurs and general thickening..

There is no more grateful thing in the realm of medicine than to give a person or child proper breathing through the nose. There is nothing that has a more beneficial effect upon the general health, upon the development of the head, of the teeth, of the digestion and of the lungs, than to produce proper nasal breathing. Now, how shall we do it? There is no use in putting applications of iodin or anything else on the pharyngeal tonsil or the faucial tonsil. That has been given up long ago. We must remove this obstruction by surgical means.

Now, how should we do it? Nearly all catarrhal disease, which may even cause deafness, starts out with adenoids. Now we take the pharyngeal adenoids out at the earliest possible time, before there are any developments in the head, upper jaw, or interference with proper respiration. These adenoids must be taken out thoroughly. I must say the same of the faucial tonsils, they must be taken out thoroughly. There is no use in simply snipping out part of the diseased structure. The structure is of no use after birth; it was used before the child was born in the manufacture of the white blood corpuscles.

I have brought with me some specimens of a thorough enucleation of the tonsil, which I hold is the only way that the tonsil should be removed. These are the results of three complete tonsilectomies that I did this morning.

Now about these turbinal bodies—what is their office? The lining of the nose is made larger by these convolutions of the membrane over the turbinated bones for the purpose of giving a larger air space, which warms, moistens and purifies the air. These turbinal bodies are good for something. You should *never* remove an entire turbinal body, but only sufficient to give proper nasal respiration. The Carmalt Jones operation has been given up, and I think it is wise that it has been. The proper way to reduce a turbinal body is to remove the obstructing part of it with saw and scissors; do not remove the whole turbinal body, because it is of just as much use to you as a section of your lungs. Remove as much of the hypertrophied bone as possible, but leave the mucous membrane in. If you remove the turbinal bodies completely, what is the result? You have the same condition that you get in atrophic rhinitis; the air is no longer moistened, purified or warmed. Therefore leave as much of the turbinal body as you can consistent with securing good nasal respiration.

The operation of turbinotomy is less harmful than the operation which is done every day by the majority of us in cauterizing the mucous membrane by the electro-cautery or by chemicals. Therefore, I say, remove only as much of the turbinal body as is necessary, but remove adenoids completely; and remove all of the faucial tonsils when there is sufficient obstruction to affect the general health.

Do not straighten every nose that comes in. The septum is not straight in many noses; if it is near enough to nature let it go; but if it is sufficiently deflected to cause a difference in the air pressure from one side of the nose to the other then straighten the septum. The proper practice, I repeat, is to remove all obstructions in the nasal pharynx, in order to get a good effect upon the general health of the patient.

The tonsilitome does good work but it should be assisted by forceps. I much prefer the cold wire snare, and a snare built similar to the tonsilotome, to pull out the tonsils thoroughly. But always before removal dissect out the tonsil from the anterior and posterior pillar, so that it comes out easily, because as a rule these cases have had inflammation of the tonsil many times and they are bound down to the palatal pillars. The operation may be very quickly done.

DR. HERMAN STOLTE of Milwaukee:—Although I cannot say that I agree on all points advanced by Dr. Iverson in his instructive paper, we all certainly feel indebted to him for the impression made upon the profession of the importance of paying more attention to the restoration of a normal ventilation of the upper air passage, as there are many diseases, especially in children, due to an existing obstruction of the upper air tract which source is never diagnosed and the secondary symptoms treated only symptomatically. Take for instance, the existence of pathologically enlarged adenoids in the upper pharynx; a much more common cause of nasal obstruction in children than the hypertrophic turbinated bones in the nose. These children suffer constantly from so-called colds, which is in reality nothing more than an acute inflammatory condition of the adenoids combined with increased mucus or purulent secretion which runs down the pharynx and bronchial tubes and also affects the Eustachian tubes and middle ear, thereby leading to chronic inflammatory conditions and deafness. An insufficient or entirely lacking passage of the nasopharynx causes children to become mouth breathers which in the course of time debilitates the general health, causes anemia by insufficient oxygenation of the blood, and produces those characteristic ineffaceable traces of nasal respiratory obstruction by that peculiar deformity of the face; and furthermore, it causes the debilitated and mal-developed physique of the lungs together with the retardation of the mental and physical development.

I know, out of my own experience, hundreds of cases where such children were treated with tonics, sending them to summer resorts, giving them gymnastic exercises or endeavoring by constant medical treatment to cure the repeated attacks of colds, coughs, bronchitis, anemia, general weakness and arrest of normal development, but it never occurred to the attending physician that the restoration of the normal air passages by removal of the adenoids would prove a rapid and lasting cure. The same conditions apply, as Dr. Iversen has so ably brought forth, to the hypertrophic turbinated bodies, more especially to the hypertrophy of their posterior extremities. These produce, similar to the adenoids, catarrhal nasal hypersecretion and obstruction causing consequently mouth breathing and constant catarrhal irritation of the pharynx, with its consequences. Yet we must bear in mind that in children ninety per cent. of the hypertrophic conditions of the lower nasal canal, especially the posterior extremities of the lower turbinates, are, when they exist, due to the co-existing adenoids, and that the former disappear after the restoration of the normal conditions in the upper pharynx. Thus only in extreme cases, especially in children, are we obliged to resort to surgical procedures, such as resection of obstructing parts of the lower turbinated bodies.

A more frequent cause of nasal obstructions, occurring in children as well as in adults, can be attributed to a deviation of the septum occurring

either alone or with a co-existing exostosis or exchondrosis of the latter. Under such circumstances I would hesitate to resort to the resection of the turbinated bodies, thereby sacrificing the most vital parts of the nasal structure. Here I would restore the normal passage by a submucous resection of the deviated septum or the excrescences as the case may be. In younger children, under ten years of age, having a co-existing hypertrophic condition of the turbinated bodies, I would not recommend a septum resection, but would prefer to give temporary relief, diminishing the obstruction by giving an astringent such as argyrol, or by a careful cauterization of the swollen edematous tissues of the turbinates, provided we have not to deal with secondary conditions due to adenoids.

There is no question but what any condition of under-ventilation of the nose must be restored to the normal, but I cannot fully agree with Dr. Iversen that this should be done by producing hyper-ventilation by means of resecting the greatest part of the hypertrophic turbinated bodies. We here have to differentiate between two conditions: either we are dealing with a simple edematous enlargement of the soft tissue of the turbinated bodies, the bony structures of these bodies not being particularly enlarged, or with cases in which the bony structure itself is so enlarged that it extends to the septum or floor of the lower meatus. To this class belong also the cases in which the bony structure is of pretty nearly normal size; but in the latter case the soft tissues of the enlarged turbinated bodies may show such a tremendous hypertrophic swelling that the entire lower border of the turbinated bodies hangs down as a pendulating tumor, filling out the entire lower meatus.

In the first series of cases we are not always obliged to resort to surgical interference, such as resection of the swelled tissue, as we can accomplish the same result by scientific and skillful application of the electric cautery. Dr. Iversen absolutely condemns the use of the cautery, but I cannot agree with him on this point. It is true that in its abuse tremendous damage has been done to the nasal structures by inexperienced and unskillful operators. On this account it is well to warn the profession against the general and too free use of the cautery, because, as Dr. Iversen has mentioned, too much functional tissue may be destroyed and a septic infection of the middle ear might possibly result. Still, these reasons do not justify us in discouraging the use of the cautery entirely, but should guard us against its abuse. The sub-mucous appliance of the cautery or an application of the cautery by making a deep cauterization line from the posterior extremity forwards throughout the whole length of the swelled tissue into the periosteum along the line of the greatest swelling, brings about on the one hand a general shrinking of the hypertrophic parts, and on the other hand a linear scar which fixes the shrunken tissues to the periosteum and considerably diminishes the size of the turbinates, thus producing sufficient air passage without destroying much functional tissue and producing only a minute linear scar. Our purpose is to produce free ventilation with the least sacrifice of functional mucous membrane. This is so very important for the oxygenation of the blood and the moistening and warming the respiratory air. The danger of infection is absolutely lacking if we use the precaution of swabbing the groove of cauterization with trichloracetic acid (recommended at first by Prof. Furasz in 1885) with which Dr. Iverson stated he had also such good results.

The decision whether to apply the cautery or make a resection depends upon the resulting shape of the turbinated bodies after an application of adrenalin has been made. If a perfectly normal shape results, owing to the shrinking power of the adrenalin, thus proving that all the enlargement of the organ was caused by an edematous engorgement of the soft tissues, we are justified in using the cautery; while on the other hand, if we are dealing with the second class of cases comprising the enlarged bony structure or the pendulating hypertrophic solid swollen tissue, we must then resort to resection or amputating method.

Dr. Iverson recommended the Carmal Jones spoke-shave as a very useful instrument in the hands of an expert. In the hands of the inexperienced the danger of removing too much, especially from the bony frame, exists and has been done thousands of times. I myself abandoned the use of it. I use only Cohen—lysper's scissors with which I am able to resect just as much as I want.

The production of a hyperventilation instead of a normal ventilation by the sacrifice of too large a part of the turbinated bodies is a grave danger against which I cannot warn sufficiently. During my assistantship in different European clinics I too often saw the bad effects resulting from this line of surgery being overdone,—both in regard to cutting too much of the structures away, and in performing an operation at all where it was not warranted—not to be impressed with the necessity to warn against this abuse of removing too large a portion of the vital nasal structures. In Vienna especially I was astounded to see the grossest abuse in doing this operation. In fact, one seemed to have quite forgotten that these organs possess such important physiological functions.

Hyperventilation brought about in this way is liable to gradually produce the very annoying conditions of dry pharyngitis with all its troublesome symptoms, such as we are confronted with in atrophic rhinitis. Certainly it is our duty to avoid such deleterious after-effects.

One point in Dr. Iverson's paper proved of special interest to me, namely, his mention of the treatment of all co-existing sinus diseases as causative factors, because a treatment of the secondary congestive conditions in the turbinates without the removal of the cause would prove very unsatisfactory. As in children the adenoids, so in adults the sinus empyemata, either with or without formation of polypi, play the most important rôle as causative factors.

The treatment, according to modern surgical principles, is the removal of polypi and destruction of the polypous matrix, and in co-existing sinus empyemata, which is present in the majority of cases, a free resection of the sinus walls and thorough eradication of all diseased parts will produce a permanent cure of this troublesome disease.

In conclusion, I wish to congratulate Dr. Iverson upon the admirable presentation of a subject so important to both the specialist and the general practitioner. I particularly appreciate it because of the emphasis it gives to the necessity of a restoration of normal nose ventilation.

DR. G. E. SEAMAN of Milwaukee:—I would not have a word to say to prolong this discussion were it not for two facts or two possibilities: One is that some of the gentlemen who have not used this Carmal-Jones spoke shave may be separated from their money to purchase what is generally considered

as not only a worthless instrument but a dangerous one, whether in the hands of the general practitioner or in the hands of the specialist. The other is that to permit this paper to go without adverse comment would practically amount to approval of the ideas advanced.

I have used this instrument, and my associate, Dr. Hitz, was the man who introduced it in this part of the country. He used it a few times, but when he saw what harm the instrument did he gave it up. If there is any man here who has it in mind to buy one of these instruments, he can get two at our office for nothing.

Now the fact is that it is not necessary to remove the entire turbinal body; and it is not desirable. In all cases where you are going to remove the bony or hardened structure, it ought to be done by first making an incision in the mucous membrane. I believe that the cautery is a necessity in many instances. I have always believed that the nose is designed for the purpose of breathing and for smelling, and if it is free and open to the extent necessary for these functions, and drainage is unobstructed, then no operative procedure of this nature should be resorted to. If it is not, then only sufficient tissue should be removed to put it in the position that it should be in order to perform the functions for which it is designed.

But the special point that I want to make is that this Carmal-Jones instrument is dangerous and has been abandoned by the profession for at least eight years.

Clearing of Opacities of the Cornea Caused by Lead and Lime. ZUR NEDDEN, Bonn. (*Trans. 32nd Congr. of the Ophthal. Soc., Heidelberg, 1905.*) Following Guillery, who first devised a new method for clearing opacities of the cornea caused by lime with hydrochlorate of ammonium, z. N. experimented with different salts and found tartarate of ammonium preferable to all others in removing chemically lead incrustations of the cornea and opacities due to lime. (C. Z.)

The only Remedy in Combating School Myopia. GRUNERT, Bremen. (*Trans. 32nd Congr. of the Ophthal. Soc., Heidelberg, 1905.*) No hereditary predisposition is necessary to become myopic. The healthy normal eye of any child to-day is exposed to this danger. The youthful age is the predisposition. G. therefore suggests that a child should not be taught to read and write before his 9th year. In the discussion, Siegrist set forth the importance of astigmatism as an etiologic factor in producing myopia, and showed this by his statistics. He found in 75 per cent. of his myopes, 75 per cent. pathologic, 25 per cent. physiologic astigmatism, in the eyes of individuals between 6 and 40 years in general 75 per cent. physiologic astigmatism and 25 per cent. pathologic. (C. Z.)

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EDITORIAL COMMENT.

THE PASSING OF A SOCIETY.

In accordance with the plan outlined when the organization of the State Medical Society went into effect, another old society, rich in traditions, has given up its independent existence, and passes into history. In accordance with a resolution introduced several months ago, the members of the Northwestern Wisconsin Medical Society, at their recent annual meeting held at Stevens Point, voted that their society be discontinued as such, and that its interests be merged into a new body—the Ninth Councilor District Medical Society. The officers of the new organization are: President, Dr. C. von Neupert, Jr.; Secretary, Dr. P. McKittrick.

The Northwestern Wisconsin Medical Society was organized on

August 14, 1879, the first meeting having been held at Amherst. It counted among its members many who have achieved much prominence in the medical affairs of our State.

THE DANGER OF SENDING CONSUMPTIVES TO THE COUNTRY.

An article with the above heading recently appeared in *Charities* from the pen of Miss La Motte, tuberculosis nurse of the visiting nurse association of Baltimore, and is so suggestive that we take the liberty of quoting from it at length. Our new knowledge of the curability of pulmonary tuberculosis has given to the public an imperfect understanding of the class of cases that is curable. At this season of the year many physicians are doubtless advising patients to seek the country, and a perusal of Miss La Motte's paper should at least bring about a decided modification of advice and greater care in recommending a method of unquestioned efficacy which may by insufficient knowledge on the patient's part work harm both to him and to his hosts.

"With the knowledge that tuberculosis is a curable disease, has arisen, as far as the public is concerned, a very imperfect understanding of the class of cases that is curable. The public mind is very generally imbued with the belief that fresh air is the remedy for the disease, and that country air is much more valuable than any other in bringing about the desired cure. The physical condition of the patient has apparently nothing to do with the situation. The most advanced and hopeless cases are usually the ones that are sent from the cities, and in many instances through the efforts of some charitable agency. It is not as if sending these patients away meant their ultimate recovery. It does not, for in most instances they are patients who could not gain admission to a sanatorium, being in too advanced a stage for cure. It means simply that the lives of these patients are somewhat prolonged, and that in so doing the disease is spread broadcast among the ignorant and helpless people of remote country districts.

The situation of a tuberculosis patient in Baltimore is about as follows: He is usually under the care of some physician or dispensary, where he reports once or twice a month, and is given such medical treatment as is necessary. The tuberculosis nurse also visits him provided with sputum cups, instructs him in the necessary care of his health, and above all, teaches the family the dangerous character of the disease and how to avoid infection. When he dies or

moves, his house is fumigated and everything possible is done to prevent the spread of the disease. It is a noticeable fact, also, that however careless and indifferent the patient himself may be, his family is nearly always fully alive to the danger, and the more careless the patient, the greater the efforts of the family to protect themselves. Now, when a patient is advised to leave his home and go to the country, he is taken away from all these influences and no one is responsible for him. He has no one to direct him and he forgets in a day what he has been taught. He knows that he was sent away for "country air" and if he can get that air huddled over a country stove, so much the better. His appetite is poor, and no one insists upon his eating; moreover, the quality of food among country people is often notoriously bad. In one instance a young woman, who had been sent away and whose board had been paid for weeks by a charitable agency, reported that she could get no eggs, as the hens had stopped laying, and that she had only a quart of milk every other day. She asked if she could not come back to the city, where she could get more to eat. Cases like this are frequent.

As for the patient taking any precautions against the spread of his disease, if he took any sputum cups with him, they are soon used up; the chances are however, that he took none, for when a consumptive is not careless he is sensitive, and once away from a family opinion that demands protection, he abandons all efforts in that direction. He is thus not only a constant source of danger to the people he is in contact with, but it is impossible for him to derive much benefit, and he often returns to town after a stay of weeks or months, much worse than when he went away. Out of fifty-five cases under observation in the last eighteen months, only two were really benefited by this stay in the country, thirteen were temporarily improved, but lost it all within a few weeks; thirty-two returned to the city much worse than when they went away, and eight died while in the country.

So much for the benefit derived by the patient. The danger to the community must now be considered.

In each of these fifty-five cases sent to the country it is safe to assume that fifty-five centers of infection were created as a result, and it is doubtful if one of these infected houses was afterwards fumigated or cleaned with a view to making it harmless. It has been, of course, impossible to follow the results in all of these households—little country farmhouses in remote counties, but doubtless they would be as appalling as in the two instances that have recently come to our

knowledge. One of these was the case of a consumptive, sent from Baltimore to a little farmhouse in Virginia, and three members of that country household contracted tuberculosis from him. The original patient died, one of the secondary cases died, and the other two have but a few months to live. The other case is of a woman who had been under the surveillance of the tuberculosis nurse for some months. While in the city the nurse saw to it that the patient used her sputum cups regularly and slept in a room by herself. This patient, who had been sick for about two years, was finally sent to the country. She had no supplies and she and her child of five occupied the same bed. At the end of five months she returned to Baltimore almost in a dying condition, and it was found that her child had contracted tuberculosis.

This promiscuous sending of patients to the country is a very serious matter. It is of little value to the consumptive, but of the gravest danger to the helpless and ignorant household with whom he is quartered. If he cannot be admitted to a sanatorium, he should be watched over at home, where his danger to the community may be lessened. However sympathetic we may be, sentiment should give way to facts, and the facts show that no consumptive is capable (by the very nature of his disease) of sufficient moral courage to undertake the rigorous open air treatment alone. By ordering him to the country, we shift the responsibility and so ease our conscience, but we do not help the patient. We merely spread the disease. Until public sentiment demands hospital facilities for these patients, we should keep them where they are. For advanced cases we need hospitals, not farmhouses".

MILK EXHIBIT IN CLEVELAND.

A notable event, one likely to have far reaching results, has recently transpired at Cleveland, *viz*: the first municipal milk exhibit and competition for prizes, conducted by the United States Department of Agriculture. Sixty-five dairymen submitted samples of milk, and of these, thirty entered the contest for the most sanitary and best conducted dairy farm.

Emulation called forth in this manner proved a pretty safe method of testing the contestants' ability to market preparations free from severe criticism, and the results of this contest were highly gratifying.

For the unsuccessful competitors this contest will have an educa-

tional value, and it is safe to say that while there may be a degree of laxity on the part of some after they are beyond the scrutiny of the judges, this contest will do much to insure for the city of Cleveland a very safe milk supply.

SAFEGUARDING MILWAUKEE'S MILK SUPPLY.

It is gratifying to note that the officials of the Milwaukee Health Department are not resting upon their oars in the perfection of the city's milk supply, but are endeavoring to raise it to the highest possible standard. The importance of a good milk supply need not be emphasized in any discussion among members of the medical profession. Their training and experience teaches them that there is nothing more important than a good milk supply to insure the maintenance of a low mortality rate.

Milwaukee for years has had an excellent milk ordinance. This is being rigidly enforced by the Health Department, and valuable suggestions for an improved system have been made recently, in the form of a new amendatory ordinance, prepared by the Commissioner of Health and submitted to the Common Council. This measure is now pending, and physicians could do no better work than to actively co-operate for the enactment of this law.

For the benefit of those who are not familiar with the provisions of the present or old ordinance, attention is briefly called to the following important provisions:

All sellers of milk are licensed, the Commissioner of Health having power to revoke such license for cause.

Milk must not contain more than 88 per cent. of water fluids, or less than 12 per cent. of total solids. 3 per cent. must be butter fat.

Milk must not contain more than 250,000 bacteria to the cubic centimeter.

Cream must contain 18 per cent. butter fat.

Skimmed milk is prohibited except when labeled, and under no conditions must it be sold if it contains less than 8.5 per cent. total solids other than butter fat.

All kinds of adulterations and preservatives are prohibited.

The sale of milk or cream from sick or diseased cows, or from cows kept in an unclean condition, or from cows fed on distillery slops, is prohibited. The feeding of distillery slops is permitted where it is properly mixed with dry, sanitary grain or food.

The sale of condensed or evaporated milk is prohibited except where properly labeled.

Impure, adulterated or unclean butter milk is prohibited.

Cow stables, either within or outside the city, which furnish milk to Milwaukee, must be kept in a sanitary manner, and the Department is directed to make inspections.

Milk not handled under sanitary conditions may be refused entrance into the city.

Milk or cream is prohibited which has been taken from cows within fifteen days before or twelve days after parturition.

All receptacles used in the handling of milk and cream, or places where such are kept or stored, must be scrupulously clean.

All cans, vessels and receptacles in which milk or cream is kept must be sterilized with boiling water or live steam each time they are used.

It is made the duty of the Health Department to inspect all places where milk or cream is handled, and power is given to enforce the rules of cleanliness.

Attention is called to the fact that only during the last year have the health officials enforced the provision prohibiting the sale of milk having more than 250,000 bacteria per cubic centimeter. In other words, not until within the last year has there been a bacteriological examination of the milk supply. The inauguration of this feature, previously overlooked, has resulted in raising the standard of the milk supply in a marked degree. In recent tests, more than 80 per cent. of the samples have come within the provisions of this rigid bacteriological requirement.

To the foregoing provisions, the Health Department has recommended in its new ordinance six distinct additions. The most important of these is a requirement for an annual tuberculin test, by a duly licensed veterinary surgeon or by any other person given authority by the State Live Stock Sanitary Board to make tuberculin tests, of all cows from which milk is drawn for use within the City of Milwaukee. A system of registration and identification of cows is provided which should give the Department a complete check upon all sources of the milk supply. A similar law is in force in Minneapolis, and practically insures the people of the city against any possible danger of contagion from tuberculosis through the channel of the milk supply.

A second change suggested, and one which, if accepted, will be the only one of its kind in the country, is the requirement that in cream there shall not be more than thirty pus cells in each one-twelfth inch oil immersion field, or other manifestation of inflammatory conditions.

A third important provision is that milk shall not be sold or

offered for sale, stored, exchanged or delivered, when the temperature of such milk is higher than fifty degrees Fahrenheit. The advantage in requiring that milk shall be kept cool at all times is obvious to anyone.

The fourth provision suggested is that all milk delivered in quantities less than one gallon must be in sealed glass bottles. This means that the consumer is to get milk and cream which has not been subjected to the exposure which the old system of delivery in bulk makes possible.

The fifth provision makes the entire milk ordinance applicable to even those persons who have one or two cows and peddle to their neighbors or other customers by hand. Under the old law, such milk dealers and their milk were entirely exempt from all regulation.

The sixth provision requires that all milk brought to or delivered in the city must be kept in covered wagons, carts or other conveyances, and it is also provided that the cover shall not come in contact with the cans, bottles or other vessels containing the milk and cream, and must be so constructed that they protect the milk and cream from the sun and rain, and, so far as practicable, from the dust and all impurities of the air.

In the opinion of the Commissioner of Health and other officials who have made a close study of the subject, the enactment of the proposed amendatory ordinance will give to the City of Milwaukee the most complete and protective milk ordinance of any city in the country. The measure will not work any undue hardship upon any person engaged in the milk business, and so far as we can learn, the better class of milk dealers and shippers in and about the city are anxious for the enactment of the law.

THE DEPRAVITY OF THE YOUTH.

The committee composed of members of the Milwaukee Common Council, appointed by its president to investigate the causes of the depravity of the Milwaukee youth, has had placed before it a task of great proportions—one of tremendous importance. The fact that this investigation is to be carried on does not imply that immorality among the youth of our city is rampant to any greater degree than in other cities of its size in this country. On the contrary, there are reasons to believe that there is far less viciousness here than exists in many other urban communities.

The committee has gone about its task in a way calculated to bring about some tangible result. It has formulated a set of questions covering the entire life of the child that is covering his school work

and the time devoted to the home and to recreation, and has distributed these lists among those whose daily contact with the youth in health and in illness, is likely to entitle their opinion to some weight.

In certain matters—such as the advisability of the organization of clubs of boys and girls in connection with their school work, "in the pursuit of various courses of amusement, art, craft, and culture," and in the use of the school play ground, there will in all likelihood be no serious difference of opinion. Such wholesome diversion, which will at the same time have an educational value, will make of the girls more competent and accomplished women and housewives, and of the boys more manly and self-reliant men.

Much honest difference of opinion will doubtless be expressed upon the subject of "Sexual Knowledge". The questions are:

1. Is it wise to keep the youth in ignorance as to the relation of sex? Or should instruction be provided for?
2. At what age of a child should such instruction begin?
3. Are parents always qualified to give such instruction?
4. When parents fail, should such instruction be provided for in our Public Schools by competent physicians or biologists, the sexes being segregated?

It has been freely argued and asserted of late years that because of the indifference of parents, or, at any rate, a dislike on their part to undertake the instruction of their children in matters pertaining to the sexes, children have—in their desire to have the veil of mystery lifted—gone to other sources for information, often sources inclined to give tainted advice. To circumvent this danger it is advised that boys and girls should, from an early age, be given separate instruction in these matters, and that they be not kept in ignorance of the physiology of the organs of sex, and of all else that pertains to them.

Our own personal opinion is at variance with this teaching of the modern workers along these lines. We can see pitfalls presenting themselves where formerly the path for little feet was smooth. Young girls whose minds are healthy and pure need no instruction in matters pertaining to the relation of sex. Not only do they not need it, but it must be conceded that they grow into far more beautifully minded women if their innocence is conserved. There are many girls less well poised whose morals would suffer more than profit by any teaching that aims to concentrate their attention—even though it be with a finger of warning—upon matters that were hitherto little dreamed of in their philosophy; in such girls it needs but a little freedom of speech to kindle a desire for more knowledge, with the result that when in company with kindred spirits the information thus

gained becomes a topic of conversation. An easy outcome of this is vicious thought, and then follow vicious habits.

To a degree, though not with the same force, this argument applies to boys. We believe, however, that in their case a certain amount of instruction can be profitably given, but the responsibility of this we would prefer to see placed upon the parent and phvsician.

In any event, it is our belief that this instruction, as proposed by many, if collectively administered to young people, is harmful, because it forms an opening wedge for a line of thought among those who already have much in common, and who would therefore make this new acquisition common property too.

The school should not consider this part of a pupil's education within its province, nor is the teacher the one to whom this power of attorney is to be delegated by the parent. When necessary to give instruction in these matters, it should be in private seance, never in class.

NEWS ITEMS AND PERSONALS.

Dr. W. H. MacDonald, of Lake Geneva, returned on May 4th from a three months' trip in Europe.

Dr. Walter F. McCabe of Beloit, has, because of ill health given up his practice and will go into real estate business in Minneapolis.

Dr. E. L. Bolton has suffered the loss of his wife, who died at Chilton early in May. Her remains were taken to her former home in Merrill.

The D. Appleton Co., of New York, have issued an elaborate new catalogue of their medical and surgical publications. This will be sent to physicians upon request.

The Century Magazine for April contains a well written article on **Color Blindness** by Dr. Edward A. Ayers. It is in a popular vein, beautifully illustrated, and well worth reading.

State Society Program. It has been planned to present two medical symposia at the next annual meeting; one on Headaches, and one on Puerperal Infections, each to be composed of four 15 minute papers.

Dr. S. E. Williams of New Richmond, who had charge of Dr. W. S. Wales' practice, during the latter's absence in California, will, according to present plans, spend the summer in traveling and studying in Europe.

Wisconsin College of Physicians and Surgeons. The graduating exercises were held on May 28, at the Davidson Theatre. There were 22 graduates, of whom 21 were from the medical department. Dr. Wm. P. Barrett was valedictorian of his class.

Marquette University. The first graduating exercises of the medical department (formerly Milwaukee Medical College) were held on May 2. There were 54 graduates of whom 37 were from the medical department, 17 from the dental. The valedictory was delivered by Dr. Nelson.

The **Annals of Surgery** is to issue a special edition (price one dollar) in June. It is announced that this edition will excel the special Anniversary number issued in December, 1904, and if it comes up to these expectations it will indeed be a very meritorious publication. The list of contributors is very attractive.

SPECIAL CORRESPONDENCE.

THE WASHINGTON MEETING.

(Sessions of Neurological and Medico-Psychological Associations.)

The recent meeting of the Congress of American Physicians in Washington was one of considerable interest to the profession at large from every point of view. The several special societies of national character sent their men of light and leading. Surgery, Gynecology, Neurology, Ophthalmology—in short all the medical "ologies" were never better represented, and the transactions possessed the high scientific value that must result when the ablest men bring together "the best they have". The only drawback indeed was an "embarrassment of riches," for often there were papers or discussions going on at the same time in several meetings between which it was hard to choose, for the work of many of the societies is in fields that closely adjoin and at times they even occupy common territory, highly interesting and valuable to both. The many social events in the several societies, reunions, dinners, receptions, etc., and the distraction of Washington itself with its magnificent attractions as well as "distances", kept one in a mood to wish that all this wealth of opportunity might not have been concentrated in so short a space of time.

But to return to the Congress itself, and to mention some of the transactions of special note to one chiefly interested in neurology and psychiatry that yet possess also a general medical interest. In one session of the American Neurological Association, the subject of "heredity" was discussed; not in its theoretical aspect, which is so abstruse and as yet unsettled, but from the practical standpoint. As to its bearing upon the perpetuation of insanity and nervous diseases, a large amount of material and statistics were brought forward

possessing the usual value of figures upon such subjects. There was a tendency in the discussion to lay more importance upon environment and education and to make a somewhat less gloomy view from the prognostic standpoint—provided conditions promotive of the best development and highest physical, mental and moral efficiency could be maintained. Instances were cited of overcoming supposed grave constitutional tendencies by careful regulation of surroundings and regimen. The experience of the past has shown that the suicidal tendency is a frequent complication in hereditary cases of mental disease often suffering a deadly development in generation after generation. Among the cases related were some that had been watched and managed with a view of counteracting the dangers, and somewhat more favorable results than were to be expected had appeared in successive generations when the knowledge and skill could be brought to bear which the fuller experience and wisdom of the present day render possible. Dr. S. Weir Mitchell related the case of a patient in whom every kind of bad heredity seemed to be concentrated, whose career he had watched, and the developments were an agreeable disappointment. Other cases were reported of the apparent eradication of severe taints by careful breeding and management;—I say "apparent" because more than one generation is concerned in the matter and these tendencies occasionally pass over one generation and reappear in the next. Other cases were reported of the eradication or disappearance of severe taints, and the conclusion found general agreement, that, while not disregarding the dangers of bad inheritance, perhaps more stress should be laid upon environment and education than is generally the case, since nature has remarkable power of amending faults of constitution where all is made as favorable for her as possible.

There was also at one session of the Neurological a warm discussion of aphasia and the speech-localizing centers in the light of Marie's recent researches and his attempted upsetting of all that has been accepted heretofore as to the third frontal (Broca's) convolution and Island of Reil, in reference to motor speech defects. The consensus was that Marie's assertions need further confirmation, and that changes may be present in the tissues in question which have escaped his observation.

In the sessions of the American Medico-Psychological Association there were many highly interesting discussions. One of these was upon the subject of popular lectures on insanity, similar to those now being given in various cities upon tuberculosis, contagious diseases of

various sorts, care of children, etc. Dr. Stedman of Boston, who brought up this subject, stated that the Harvard Medical School had provided for various popular lectures, but had wholly ignored the subject of insanity. The same thing was true of the popular courses given in Chicago and other cities, and in the discussion a strong sentiment was brought out favoring popular instruction in mental hygiene and as to the causes, complications, prophylaxis, etc., of insanity. A committee was appointed, with Dr. Stedman as chairman, to bring to the attention of the proper authorities the importance of greater enlightenment of the public on the conditions of mental health and mental disease. The subject of "after care" of persons discharged "cured" from asylums to prevent their relapse and aid them toward self-support, where indigent and dependent, received much attention, and it was recognized that in the war against the spread of insanity this was a matter of the first moment and importance.

"Psychopathic Hospitals" formed the subject of a symposium in the Medico-Psychological Association, and it was particularly noticeable that, whereas the Psychopathic Hospital was a very few years ago an academic and theoretical subject, having little living interest, and was opposed by many of the medical officers of the public asylums as unnecessary, today it is recognized as an institution of great actuality and practical value.

I could wish for more time and space to discuss other important developments of the sessions of the societies mentioned, such as Dr. Putnam's paper on Nervous Breakdown, and the cogent discussion it evoked, Dr. Adolph Meyer's Studies of the Optic Radiations, etc., but have reached the limits of my time and, I fear, of your patience.

Wauwatosa. RICHARD DEWEY, M. D.

THE STATE MEDICAL SOCIETY OF WISCONSIN.

ORGANIZED 1841.

Officers 1906-1907.

L. H. PELTON, Waupaca, President.

A. J. BURGESS, Milwaukee, 1st Vice-President.

W. E. GROUND, Superior 2d Vice-President.

W. T. PINKERTON, Prairie du Chien, 3rd Vice-President.

CHAS. S. SHELDON, Madison, Secretary. S. S. HALL, Ripon, Treasurer.

A. T. HOLBROOK, Milwaukee, Assistant Secretary.

Councilors.

FOR SIX YEARS.

1st Dist., H. B. Sears, - - Beaver Dam
2nd Dist., G. Windesheim, - - Kenosha

FOR TWO YEARS.

3rd Dist., F. T. Nye, - - - Beloit
4th Dist., W. Cunningham, - Platteville

FOR THREE YEARS.

5th Dist., J. V. Mears, - - Fond du Lac
6th Dist., J. S. Walbridge, - - Berlin

FOR FOUR YEARS.

7th Dist., W. T. Sarles, - - Sparta
8th Dist., T. J. Redelings, - - Marinette

FOR FIVE YEARS.

9th Dist., D. L. Sauerhering, - Wausau
10th Dist., E. L. Boothby, - - Hammond

FOR SIX YEARS.

11th Dist., J. M. Dodd, - - Ashland
12th Dist., A T. Holbrook, Milwaukee

NEXT ANNUAL SESSION, SUPERIOR, AUGUST, 1907.

The Wisconsin Medical Journal, Official Organ.

SOCIETY PROCEEDINGS.

THE NEW YEAR.

We have at present 60 County Medical Societies in the State. Of these 39 have sent in their Annual Report for 1907. As usual many of these early reports are only partial, and will be added to as collections are made and new members are received. The total number of 1907 members reported to date is 954 with a net loss, compared with the total membership of 1906, of 164. The counties so far reporting a gain are Kenosha (29), a gain of 11; Richland (21), Langlade (10) and Eau Claire (29), each a gain of 3; Shawano (18), and Oneida 9, each a gain of 2; Grant 39, Washington 14, and La Crosse 29, a gain of one each; Brown 30, Clark 13, Monroe 25, St. Croix 14, and Crawford 9, are the same as in 1906. Although the conditions are more difficult in some societies than others, as a rule the promptness and fullness of the reports depend, as usual, upon the energy and efficiency of the county secretaries. From the

reports it seems likely that a readjustment is desirable in some of the "hyphenated" societies, e. g. "Trempealeau-Jackson", with a membership of 14, has but two members from Jackson county with its 13 doctors, and none from Black River Falls, the county seat, with 6 doctors. This condition is the result, mainly, of lack of proper railroad facilities between the two counties. Either Jackson should organize separately, or better, be joined to Clark County on the north. As to "Columbia-Marquette" the two counties have "agreed to disagree", that is, each county will organize separately—with its own name and officers, but both counties will endeavor to hold meetings in common, and so secure all the practical advantages of union.

The reports thus far show more care in preparation and a growing appreciation of the plan and purpose of organization. As in the past, the most discouraging feature is the failure in many of the smaller counties to hold regular and frequent meetings. This "medical society spirit" is a plant of slow growth, but the inherent and evident value of physicians—in any locality—"getting together", is such, that sooner or later, it must assert itself. When physicians learn to appreciate the fact that their interests are common rather than antagonistic, and that it is the best in principle, as well as the best policy to unite their forces against the common enemy, in the shape of quackery, ignorance, commercialism and misrepresentation, they will make a better use of the very best instrument at their disposal to accomplish this end. That the medical society and the organized medical profession can best meet the requirements of the case is the firm conviction of those who have studied the matter most carefully. By no other means can the jealousies and enmities in our own ranks be so surely abated. Organized effort is certainly the most efficient factor in securing better medical education, wiser medical legislation, and higher ethical ideals. It is too much to expect that we shall see at once the results of the present movement, but the leaven is surely working and physicians are becoming accustomed to the idea of working together to secure what seems desirable. At the present time we see the results of a united profession in the respect and consideration shown medical measures by the legislature. It is not too late—even now—to use our influence in favor of certain bills which are before the legislature and which I will briefly mention.

Bill 173 S.—To incorporate a medical department in the State University, to give the first two years of a medical course, should have the enthusiastic support of every doctor in the state. If its provisions are carried out it will enable all our boys, who wish to become physi-

cians, and who finish the course, to secure a credit of two years in any medical school in the country.

Bill 314 S.—Seeks simply to give a positive and explicit definition to the practice of medicine.

Bill 315 S.—Seeks to give a more comprehensive definition as to what shall be considered immoral, unprofessional and dishonest conduct on the part of licensed and registered physicians.

Bill 449 S.—Provides penalties for advertising treatment of venereal and sexual diseases, and is aimed at illegitimate, fraudulent and obscene medical advertising. It has already passed the senate. All these bills should be passed, and we should do all we can to help them on.

Bill 416 S., should *not* be passed. It is an attempt to revise, practically, the whole of our medical legislation now in force. If passed, it would emasculate and nullify most of the provisions relating to the practice of medicine and the requirements for practice, now in force.

Every reputable practitioner should use his influence to defeat it.

THE STATE MEETING.

It is now only three months before the annual meeting in Superior. Those who are to furnish papers should have them finished and in the hands of Chairman Ground by this time. If not finished, delay no longer. The State Meeting expects and should have the very best thought and effort of the whole state. The meeting is bound to be most enjoyable and will include one or more union meetings with the Minnesota State Medical Society, which meets at the same time in Duluth, and a boat ride on Lake Superior. The social features will be especially emphasized and the whole meeting will be in the nature of an August outing in the cool air of the north. Plan early to be on hand, and don't allow anything to upset your plans.

A word to the secretaries and councilors. If we are to show at the Annual Meeting a gain in membership over 1906—or even hold our own—earnest and persistent work is absolutely necessary from this time on. *Don't let up* on the delinquents, but keep after them till they surrender at discretion. Account for every man in your county and get all the new members that can possibly be secured. Send a list of eligible non-members as well as the names of the delinquents to your Councilor and ask him to use his personal influence in getting them into the fold. And get them in before our

State Meeting. All the other state societies are increasing their membership. It would be a shame for old Wisconsin to fall behind.

C. S. S.

CALUMET COUNTY MEDICAL SOCIETY.

The regular quarterly meeting of the Calumet County Medical Society was held at Chilton, April 29, with a good attendance. After the usual business Dr. E. L. Bolton of Chilton read the report of a case of sarcoma of the kidney in a child of four years and exhibited the tumor which had been removed at post mortem. The tumor weighed twenty-two pounds and was nearly two years in growing after detection. Dr. L. Rock Sleyster of Kiel, reported a case of sarcoma of the kidney in a young woman of twenty-six with operation, which, however, was unsuccessful.

Dr. C. G. Greengo of Chilton reported an interesting case of angioma of the liver.

It was decided to hold bi-monthly meetings the remainder of the year. After the adjournment dinner was served at the Hotel Chilton.

The next meeting will be held in June at Hilbert.

L. ROCK SLEYSTER, M. D., *Secretary.*

GRANT COUNTY MEDICAL SOCIETY.

The Grant County Medical Society held its regular meeting at Montfort, May 9th, with the vice-president Dr. F. Blackburn in the chair. Nine members were present.

A carefully prepared paper on *The Electrical Treatment of Goitre,* was read by Dr. R. H. Kinney, of Lancaster.

The subject *Surgery more Especially from the Standpoint of the Country Doctor,* was ably treated by Dr. W. Cunningham.

Dr. G. H. Perrin read an interesting paper on *Some of the Diseases of the Stomach Found in Ordinary Country Practice, and Our Mistakes in Treating Them.*

A paper on *Auto-Intoxication,* by Dr. C. A. Cooper, was full of interest and practical points.

A free discussion followed the reading of each of these papers.

Each member present reported an interesting case, coming under his observation, giving treatment for same. A number of unusual cases were thus presented and many helpful suggestions offered.

Dr. G. H. Perrin of Wauzeka, Crawford County, was made an honorary member of this society.

The next meeting will be held at Lancaster, the second Thursday in September.

M. B. GLASIER, M. D., *Secretary.*

NORTHWESTERN WISCONSIN MEDICAL SOCIETY.

The annual meeting of the Northwestern Wisconsin Medical Association was held at Stevens Point, May 7, 1907. This meeting was attended by about

twenty-five physicians and was very profitable, ending wth a smoker and lunch at which Dr. Pelton acted as toastmaster. The following program was presented:

1. Medical Inspection of Schools, President John F. Sims, Stevens Point Normal School.
2. Food, Milk, and Meat Inspection in Smaller Cities, Dr. Carl A. Sander, Waupaca.
3. Preventive Medicine, Dr. W. W. Gregory, Stevens Point.
4. Surgical Topics, Dr. D. Sauerhering, Wausau.
5. Report of a Case of Transverse Rupture of the Membranous Urethra, Dr. Karl Doege, Marshfield.

At this meeting the old Northwestern, which has been the leading medical society of this section of the state for years, passes, as it were, into history. A resolution which had been introduced at a meeting some months ago, was adopted, by virtue of which this society becomes the official Ninth Councilor District Medical Society, the officers elected being Dr. C. von Neupert, Jr., president; Dr. Peter McKittrick of Thorp, Secretary.

The Northwestern was organized August 14, 1879, and the first meeting was held at Amherst. Among its members have been many men prominent in the affairs of the medical profession of the state, several having been presidents of the State Society.

The next meeting will be held in July at Waupun.

C. VON NEUPERT, JR., M. D., *Secretary.*

FOX RIVER VALLEY MEDICAL SOCIETY.

The regular quarterly meeting of the Fox River Valley Medical Society was called to order by the president, Dr. W. R. Hicks, of Menominee.

A paper was read by Dr. Edward Quick, of Appleton on *The theory of immunity in the light of recent studies of Phagocytosis and Opsonins.* The paper was ably discussed by Dr. M. J. Sanborn of Appleton, and Dr. C. M. Echols, of Milwaukee.

Dr. H. E. Luehrs, of Hilbert read a paper on *La Grippe and its treatment.* The discussion was opened by Dr. I. N. McComb, of Brillion and Dr. C. D. Boyd of Kaukauna, followed by a general discussion.

Dr. S. Gordon Todd, of Neenah read a paper on *Diseased conditions of the tonsillar ring.* Discussion was opened by Dr. S. E. Wright of Marinette.

Dr. C. M. Echols, chairman of the committee appointed to revise the constitution of the society, asked for further time to report, as his committee wanted to give the subject more time and consideration and to send copies of the revision to all the members before the July meeting. His request was granted.

Dr. C. D. Boyd of Kaukauna presented a clinical case to the meeting to have his diagnosis of nephritis and general arteriosclorosis verified. On motion the chair appointed a committee, consisting of Drs. R. E. Minehan, Edward Quick, and E. Echols, to examine the case and report findings. Dr. R. E. Minehan of the committee said that after a thorough examination his committee confirmed the doctor's diagnosis.

H. P. RHODE, M. D., *Secretary.*

MILWAUKEE MEDICAL SOCIETY

Meeting of April 9, 1907.

Dr. H. E. Dearholt presented a case for diagnosis,—a young man who had injured the joints of a finger three months before, a sub-acute arthritis developing. An X-ray picture taken early showed perfectly normal joints while a second one taken two weeks ago showed a distinct rarefaction of the bone at the first and second joints. The question was raised whether this rarefaction was the result of a simple inflammatory process about the joints or pointed to a beginning tuberculosis. The case was discussed by Drs. Walbridge, Schiller, T. L. Harrington, and Greenwood.

Dr. W. A. Pusey of Chicago exhibited very interesting stereopticon views of a large number of cases of epithelioma treated with X-rays three years or more ago, showing the end results of treatment. Of 93 cases 65 were successful, 3 were practically successful, 14 were radically improved, and 11 may be classed as failures although several of them quit treatment before any result could have been expected.

Meeting of April 23, 1907.

Dr. R. Elmergreen presented a paper on *Femoral Hernia, a Plea for an Early Radical Operation*, which was discussed by Drs. R. G. Sayle and P. H. Jobse.

Dr. Armin Mueller read a paper on *The Significance of Traumatic Cranial Defects, with Report of a Case.* This paper will appear in full in a later issue of the JOURNAL. It was discussed by Drs. L. G. Nolte, P. F. Rogers, G. E. Seaman, and R. Elmergreen.

G. A. CARHART, M. D., *Secretary.*

BOOK REVIEWS.

Physical Diagnosis: By HOWARD S. ANDERS, A. M., M. D., D. Appleton & Co., with eighty-eight illustrations in the text and thirty-two plates. 1907. $3.00

During the last two or three years a large number of works on diagnosis have appeared, not only works on general medical diagnosis but several on each of the two branches of the subject: those devoted to the clinical or more properly the laboratory side, and those to the physical. Anders, very properly, in this most recent publication, seeks to inculcate the inductive habit of thinking: the analysis of observed facts. Where students are so overwhelmed with minutiæ in the description of diagnostic methods, breadth of vision is too often lost. It is noticeable among the majority of students graduated from our medical schools that the facts and clinical importance of physical diagnosis are made secondary to laboratory methods or even shirked utterly when cases come under their care. This work will do much to make more easy an understanding of the methods to be pursued, and any author who shall succeed in arousing the average physician to an enthusiastic and pains-

taking routine in the examination of all of his cases will deserve much of the entire profession.

The illustrations, many of them borrowed from Butler's Medical Diagnosis, are excellent. The chapter on the Roentgen Ray in diagnosis, written by Dr. G. E. Pfahler, is especially good, and the X-ray possibilities in medical diagnosis are a revelation. C. H. S.

Surgery of Genito-Urinary Organs. By J. W. S. GOULEY, M. D., of New York, Rebman Co., 531 pp. $3.00.

This work consists of brief annotations on the nature, diagnosis and treatment of the diseases of the genito-urinary organs that come within the province of surgery. These informal notes are designed to place before the profession the results of the writer's own researches as well as those of other laborers in the same field, and contain many interesting historical observations as well as many practical suggestions. While in no sense a text-book, the work covers the modern field of practice and will be found of great value in the treatment of this class of cases.

The chapters on catheterism and urethral stricture are especially worth mention and contain much information not usually to be found in the works on these subjects.

Gouley's reputation and the book's own excellence will find it many readers. C. H. S.

A Compend of Genito-Urinary Diseases and Syphilis. By CHARLES S. HIRSCH, M. D. P. Blakiston's Sons & Co., Philadelphia, $1.00. This is an addition to the familiar Blakiston Series of Quiz Compends, and for the general practitioner as well as the medical student offers a concise statement of the facts of genito-urinary surgery.

The book is clear and readable and in accord with the most recent teachings, and we are able to recommend its use to those seeking a work of this character. C. H. S.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa.—By G. W. OVERALL, A. B., M. D., Chicago. Rowe Publishing Co.

While undoubtedly this book contains much valuable information, and while some of the procedures advocated by the author are of real value, the book which is evidently brought out by an instrument firm for the purpose of advertisement, should be read only by those having a foundation of knowledge of the subject. For students a distorted idea of the infallibility of the author's methods and the entire inadvisability of surgical operative interference, is apt to be obtained. (C. H. S.)